American Aviation

25c *The News Magazine of Air Transportation* Jan. 15, 1948

Change of Command

ONE OF THE favorite expressions of C. E. Woolman, president of Delta Air Lines, is very much to the point these days: "The only monotonous thing about aviation is the constant change." And he might add, "And the abundant surprises."

The swift change in the command of the Civil Aeronautics Board which President Truman effected over the year-end holiday represents a fundamental change in the outlook for this important policy-making and transportation-building agency. If it turns out to be as good as it looks at the moment, civil aviation should be the distinct gainer.

W. W. P.

The man who failed to win re-appointment from the President, James M. Landis, is a man of brilliant legal talents and no one can question either his integrity or the vast and intense amount of work he put into the job. Yet there was something constantly lacking in the performance. The tangents which were pursued on the spur of the moment, the personal antagonisms which were generated by a man of strong opinions, the lack of consistency in the Board's position, the natural tendency of a talented mind to dominate and to run a one-man show, all these and other factors added up to a less-than-satisfactory record.

Aviation—and commercial aviation in particular—is a highly complex mechanism in this modern world. Landis swept into his work as a newcomer a year and a half ago with enthusiasm and vigor. He saw the complexities of aviation as an invigorating challenge. But somehow he tended to be swallowed up by the very complexities he was trying to solve by his constant striving for simplification. And simplification in aviation can often become tantalizingly elusive.

When Mr. Landis took over his unenviable tasks in June, 1946, we said in this column that he deserved every opportunity to succeed in his new post and that there was every indication that he wanted to succeed. But we issued a few words of caution which we feel are worth recalling here:

"As he begins his work in this third decade of a great new mode of transportation, we earnestly hope

(*Turn to Page 8*)

20-Year Airline Veteran

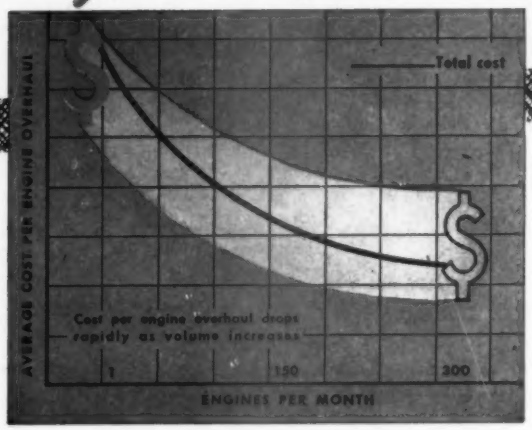
D. Walter Swan, special assistant to the president of United Air Lines, typifies the junior executives who generally attract little attention but who are important factors in growth of the air transportation industry. He is now in his 20th year of service with scheduled airlines. (See story on page 20.)

Reports to the President:

MANAGEMENT SALES OPERATIONS

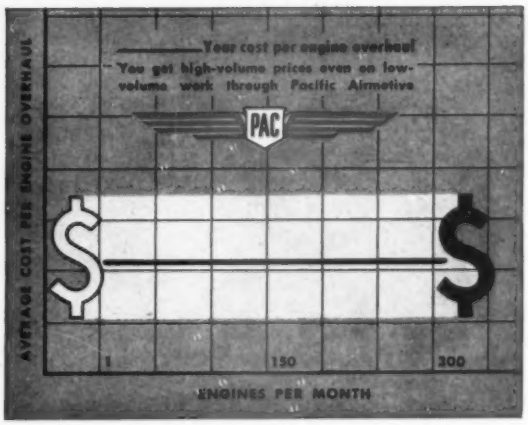
question for airline management . . .

How Much for Engine Majors?



Major engine overhauls are expensive—whether you do your own work or not—unless volume is high and constant. Typical cost charts look like this:

Regardless of the number of major overhauls you need each month, your cost *can* be low, because you can get high-volume savings through Pacific Airmotive. Your cost chart on PAC overhauls looks like this:



Here are the unvarnished reasons why you can get overhauls economically from PAC. Our volume is already high, so that your work goes in at a high-volume rate. Our overhaul bases throughout the country were built for volume and are superbly equipped with special-purpose tools and other facilities. After twenty years of experience, work procedures are systematized and efficient. Large inventories of parts are always on hand, and technical information from manufacturers is always available and always up to date.

Airlines and other aircraft operators now contracting their overhauls to PAC profit in these ways: 1. Their overhead for shops and tools, and likewise their capital investments, are at the bare minimum—a factor of vital importance during low-revenue periods. 2. Their cost per engine overhaul is the bottom obtainable figure. 3. Because of PAC's prompt service and high capacity, operators can maintain optimum regularity of service, even during peak or emergency conditions.

PAC SERVES MORE THAN 50 OF THE WORLD'S AIRLINES

SUPPLIES . . . PAC distributes more than 300 aviation lines through nine bases in the U. S. and Alaska. This includes engine, accessory, prop, and instrument parts and assemblies.

SERVICE . . . PAC furnishes engine, engine-accessory, propeller, instrument, and airframe maintenance or contract overhaul at five major bases in the U. S. and Alaska.

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AVIATION'S OLDEST AND LARGEST MAINTENANCE AND SUPPLY COMPANY

The Birdmen's Perch

By *Major Al Williams*, ALIAS, "TATTERED WING TIPS,"
Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.

You may have missed the news.

And we wish we didn't have to break it to you. But there'll be no Gulf Air Tour this year.

These Tours were inaugurated in 1937, you know. And we held them every year until the war provided obvious reasons for interrupting them. Last year's get-together was the Sixth, and was certainly the most successful one we've ever had.

But petroleum products are pretty tight this season. The demand for them is so great that, even though the whole petroleum industry is working at top speed, they're still in short supply.

And the Gulf Air Tours eat up a heap of oil and gas (over 3,000 planes, last year)!

Well, this year, we think it's in the public's interest to have that oil and gas available for other, more important uses.

So, no Gulf Air Tour.

LETTUCE DISCUSS OIL

We were sitting around with a paper one day when we came across this item:

All but 5% of a lettuce leaf is water.

That reminded us of crude oil and the small percentage of it which is suitable for lubricating purposes. Out of a gallon of crude, only about a pint and a quarter remains for lubrication after refining!

In regular lubricating oils, that is.

But to make Gulfpride Oil, we add still another refining step, the Alchlor Process. And this *extra* step throws out

an additional 15% of the already refined oil . . . hydrocarbons which we consider unsuitable for really critical lubrication!

Not until then is the oil considered good enough to bear the name Gulfpride.

Consequently, Gulfpride Oil forms the toughest, lastingest lubricating film between metal parts that we know of!

It isn't hard to prove this, either.

Just try Gulfpride Oil!

HEY, EVERYBODY!

Where are the letters? The post cards? The wires and cables?

We asked you last month if you wanted to continue the Little Known Facts About Well Known Planes Dept.

Or if you had any better ideas, such as running a "Favorite Flying Gripes" section, or "Pet Pilot Peeves". . . or you name it!

(We figure this is *your* page and *you* should be the Committee on Policy Matters.)

Well, we haven't gotten enough letters to cover our blotter. A few Perch Pilots want to continue the Little Known Facts until we get a Command Perch Pilot—a fella who's had 20 L.K.F.'s published.

Another chap wanted us to use the space to find his missing girl friend.

We don't really care what it turns out to be, if most of you are in favor of it.

But how can we tell what most of you think without letters from most of you?

So tell us what you want,

Address above.

FORTNIGHTLY REVIEW

Maj. Gen. Laurence S. Kuter on Jan. 8 was named by President Truman to succeed James M. Landis as chairman of the Civil Aeronautics Board. It was as quick a shift in leadership as Washington has seen in some time. (Page 15)

Revenues of both domestic and international U. S. airlines are expected to be bolstered by inauguration of international air parcel post now being planned by the Post Office Department. (Page 16)

A combined loss of approximately $40,000,000 is indicated for the three nationalized British airlines for fiscal year ended last Mar. 31. This equals the total direct subsidy provided for them in the Civil Aviation Act. (Page 22)

Rank-and-file airline employes not directly concerned with airline economics or with regulatory aspects of safety, as well as management, should find sound suggestions and interesting reading in final report of the President's Special Board of Inquiry on Air Safety. (Page 27)

Revenue plane-mile expenses of the domestic airlines increased nearly twice as much as plane-mile revenues during the first three-quarters of 1947, as compared with 1946. (Page 42)

•

Air Transportation for Army Dependents

Air Force sources revealed negotiations with two non-certificated and two certificated carriers for air transportation to Japan of 2,000 dependents of Army personnel. Scheduled airlines involved are Pan American Airways and Northwest Airlines, the non-certificated companies Pacific Overseas Airlines and Transocean Air Lines. The Army was reported trying to divide the business four ways, with a rate about $65 below the published scheduled fare of $650 per passenger, Army officials expressed doubt that the scheduled carriers could perform the service in brief time allotted without disrupting their own schedules. The Air Transport Command is still carrying much of the Army traffic to the Orient, but the proposed lift is beyond present capacity of ATC facilities.

House Group Checks CAA Budget

The Civil Aeronautics Administration's use of 231 aircraft and its operation of a repair base at Oklahoma City were expected to be targets for Congressional whittling as CAA officials appear before a House Appropriations subcommittee this week to justify budget requests for fiscal 1948-49. According to Rep. Karl Stefan (R., Neb.), subcommittee chairman, Administrator T. P. Wright has agreed to reduce the fleet to 90 planes, but Stefan wants a bigger cut, in belief that no more than 30 are necessary for CAA inspection activities. Stefan declared that retirement of all but 90 planes would save government $500,000-$600,000 a year, while rental of additional aircraft, when needed, would give fixed base operators a welcome shot in the arm. Last year, the House sliced $70 million from CAA budget requests.

Early Hearings on Transportation Bill

Indicative of early hearings, Sen. Wallace H. White, Jr., (R., Me.), chairman of the Senate Interstate and Foreign Commerce Committee, has appointed a subcommittee to consider S. 1912—a bill to establish a new department of transportation. Sen. Homer Capehart (R., Ind.), author of the bill, was named chairman. While Sen. Capehart has disclaimed railroad influence behind the

(Turn to Page 6)

AMERICAN AVIATION

The News Magazine of Air Transportation

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WAYNE W. PARRISH

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American Aviation Air Traffic Guide: Monthly publication of airline schedules, rates and regulations. Subscriptions: U. S. and Latin America $7.50 one year; Canada $8.00. All other countries $9.00. Published from editorial offices at 139 North Clark St., Chicago 2, Ill. State 2154. H. D. Whitney, managing editor.

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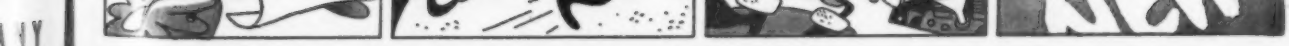


Wings for the ALL-AIR ARMY

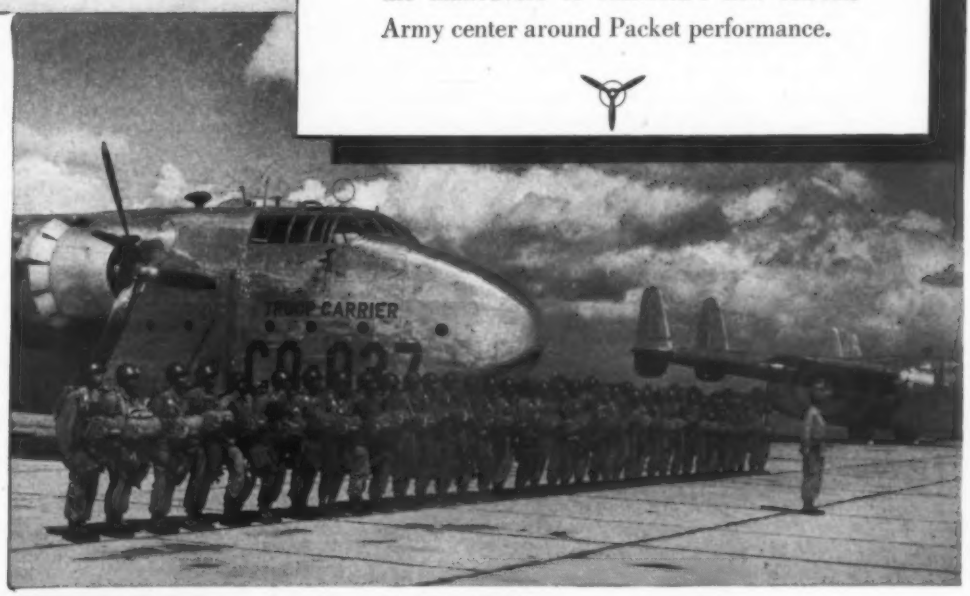
That's a 3-platoon complement of C-82's, the famous Fairchild Packet.

They are carrying 123 men, a fast-hitting, air transportable infantry unit.

The Packet is on duty in ever increasing numbers with the new Army. It lends wings to troops being trained for swift mobility and close ground-air cooperation.

It has found scores of tasks in maneuvers. It carries guns and supplies, ammunition or men. It has successfully dropped heavy field pieces by parachute to troops on the ground.

Fairchild engineers gave the Packet the ability to do many tasks well—so well that the maneuvers of America's new All-Air Army center around Packet performance.



Fairchild Aircraft

Division of Fairchild Engine & Airplane Corporation, Hagerstown, Maryland

(CONTINUED FROM PAGE 4)

bill, some legislators feel that the Transportation Association of America, a railroad front organization, is in back of the legislation.

AF, Navy Have Few Up-to-Date Models

The Air Force and Naval air arms are mostly equipped with planes now out of production, according to a report submitted by Aircraft Industries Association to Congressional Aviation Policy Board. The report shows that Navy's main air strength consists of 18 major types no longer in production, and that the Air Force still has in service eight types—including four top combat planes—that have been out of production since V-J Day. Of 79 major types of aircraft in operational use or announced as developed by AF and Navy, only 12 are in even limited production and in operational use today. Omitted from the list are highly specialized types—such as trainers, utility craft, target and liaison planes—which would increase the degree of obsolescence prevailing in the air services even further.

AF Orders 82 More B-50's

Boeing Aircraft Co. has received a contract for 82 additional B-50 Superfortresses, bringing to 215 the total number ordered by the Air Force. Between $50-$60 million are involved in the new order. Wings, tail surfaces, landing gear, and main accessories on the B-50 are interchangeable with those of the Boeing C-97 Stratofreighter, making for more efficient and economical maintenance and use of spare parts.

Notes in the News:

Boeing Aircraft Co., wholly-owned subsidiary of Boeing Airplane Co., was merged into its parent firm Dec. 31, in a move to simplify the Boeing corporate structure. The change did not affect activities or personnel . . . **Consolidated Vultee Aircraft Corp.** is completing construction of a new automobile body and repairs on the damaged wing of its flying automobile, and flight tests are to be resumed shortly. The automobile body is made of fibreglass, weighs under 800 lbs. . . . Compulsory installation of **stall warning devices** on all private planes is recommended by the committee on aviation psychology of the National Research Council, following a report by Educational Research Corp. which conducted studies with CAA funds . . . Certificates of **good airport operating practices** have been awarded to 433 airports and seaplane bases throughout the country, concluding the National Aeronautic Association's 1947 airport safety campaign. . . . **Texas Engineering and Manufacturing Co.** will confine its plane manufacturing to the two-place Swift, not enter the four-place field as many other lightplane manufacturers are doing. TEMCO believes the demand for two-place models will increase and points to six straight months of consecutive increases in Swift sales since it took over manufacturing rights of the craft. . . . **The Florida Legislature** has defined aircraft as motor vehicles, exempted them from county tangible personal property taxes and placed them under the State Commissioner of Motor Vehicles for registration with appropriate registration fees, effective Jan. 1.

Names in the News:

Garrison Norton, Assistant Secretary of State for Air, has resigned as chairman of the Air Coordinating Committee, being succeeded by **William C. Foster,** Undersecretary of Commerce. A White House statement explained that ACC problems in coming year will be "predominantly domestic in character or of a nature in which the Department of National Defense and Department of Commerce will have the greatest interest". . . . **Alan Passen,** partner in aviation consulting firm of Drew, Peters, Passen and McDonald, has been appointed by the Congressional Aviation Policy Board to make a special study of the financial condition of the airline industry. . . . **Col. Henry T. Myers,** pilot of the Presidential plane, Independence, is leaving the Air Transport Command and will return to civilian duty as a pilot for American Airlines. **Lt. Col. Francis W. Williams,** of Alameda, Calif., an Air Force pilot with 10,500 flight hours, becomes the new Presidential pilot. . . .

International

Canada Considers Landing Fee Reductions

Reports from Canada indicate that the Canadian government is planning an early decision on proposed reduction of landing fee schedules affecting use of Canadian airports by U. S. international flag carriers. Ottawa sources indicated that some reduction in rates might be expected at trans-border fields which would be designated international airports. The formula for this schedule, which would more nearly approximate landing fees in the U. S., probably will not include domestic airports in Canada. Four-engined aircraft are largely involved because of the excess weight provisions in landing fee schedules.

Trans-Atlantic Service by Irish Air Lines

Irish Air Lines (Aer Lingus) plans to enter trans-Atlantic service Mar. 17, St. Patrick's Day, with three flights weekly, two between London and Boston-New York, and one direct to New York. Lockheed Constellations will be used. The company, which is partly owned by British Overseas Airways Corp., is selling its seven Vickers Viking transports, and will replace them with Douglas DC-3's for local services.

LAV Receives Two Martin 2-0-2's

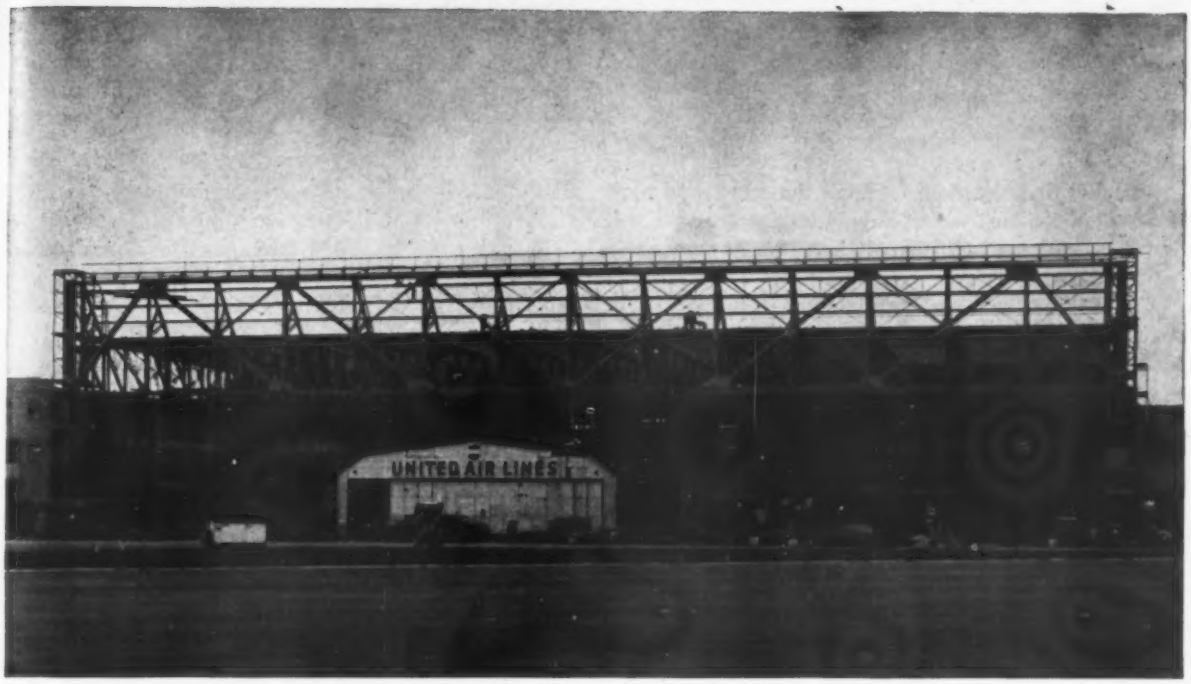
Two 36-passenger Martin 2-0-2's have been delivered to Linea Aeropostal Venezolana which plans to use them between Caracas, Trinidad, Maracaibo, and Balboa.

BOAC Returns to Flying Boats for Africa

British Overseas Airways Corp. was planning to inaugurate thrice-weekly flying boat service between London and Johannesburg, South Africa, 5,666 miles, to match the DC-4 service of South African Airways on same route. York landplanes heretofore used to South Africa will terminate at Nairoba, Kenya Colony. BOAC withdrew its flying boats on the African routes a year ago. The Solent, a civil version of the Seaford, accommodating 30 passengers, will be used. Maximum speed is listed at 273 mph at 7,500 ft.

British-Peruvian Air Agreement Signed

Great Britain and Peru have signed a bilateral air transport agreement in Lima containing the Five Freedoms and giving Peruvian airlines routes (1) from Peru via Panama, the Bahamas, Washington, and New York to Montreal, and (2) from Peru via Panama to Jamaica or to Nassau and Havana, to Bermuda and from there via the Azores, Lisbon or Madrid to London, Paris or Rome. Although specific British routes were not listed, wording of the Peruvian communique indicated they were same as those listed above.



a photograph of airline growth

Just 21 years ago, Boeing Air Transport, predecessor of United Air Lines, built at Chicago what was described by the press as "a giant all-metal hangar . . . large enough to house three 100-horsepower, single-engine Boeing 40-Bs."

Today, United has virtually completed one of the largest clear-span hangars in the world, capable of housing three 8,400 horsepower DC-6 Mainliner 300s, or three of United's new fleet of 340-mile-an-hour Boeing Stratocruisers. This new Chicago Airport structure could hold *three* of the "giant" 1927 hangars!

The photograph above was taken just before the 1927 hangar was torn down, and as the huge, new 1948 hangar neared completion around it. Thus you *see* the growth of United Air Lines in one dramatic picture.

UNITED AIR LINES

PASSENGERS • MAIL • EXPRESS • FREIGHT

UNITED AIR LINES

The Main Line Airway Takes You Nearly Everywhere

EDITORIAL

(CONTINUED FROM PAGE 1)

that he will find the time to catch the spirit and the deep-rooted feelings which have gone into the building of the present industry. It is a highly personalized industry. It is very complex in its composition. It is unlike any other industry in the country. It is tough, it is individualistic, it has all the ambition and the lack of restraint of a pioneer—but it is also amazingly sentimental."

As others have failed before him, Mr. Landis didn't catch the spirit. He never quite understood. He had too many ready answers at hand. He tried sincerely, and he wanted to remain in CAB, but he'll find himself much happier in his chosen fields of law and finance.

The new chairman of the CAB has quite a different background, and one that shows great promise in taking over the organization at this time. General Kuter's war record is one of high-level administration, negotiation, planning and leadership. He will provide a national defense atmosphere to air transportation which it perhaps needs very much right now. In addition he has a broad background on international matters.

CAB needs a breathing spell and we hope General Kuter will provide it. It needs to analyze its record of inconsistencies, to appraise the air transport network as it exists today, to perform some long-range planning, and to provide the economic stability which the airlines need today as they needed in 1938 before the Civil Aeronautics Act was passed.

CAB needs also to retain its independence as a quasi-judicial agency. Mr. Landis deserves credit for resisting the efforts of the Commerce Department to intrude into individual cases pending before the CAB, and we hope his successor will continue to keep cabinet pressures from influencing the Board in deciding new route and other cases.

We think the President's appointment is an excellent one and that it will be received favorably throughout industry. It is ample evidence that the President wants to keep CAB above the level of party politics. The outlook is good.

The CAB Feeder Puzzler

IN THE Mississippi Valley decision last month the Civil Aeronautics Board extended the paper feederline empires of two new companies into regional systems which compare in size very favorably with existing scheduled airlines.

Southern Airways, which hasn't yet begun operating the 1378 miles it was awarded early in 1947, suddenly finds itself with an enlarged network of 3250 miles. Parks Air Transport, which received an original grant of 2200 miles (not yet in operation), finds itself blessed with a network of 3687 miles by the additional award.

Now two feeder systems of 3250 and 3687 miles respectively is quite a chunk of mileage to be handed out in two single awards, and might well give cause to some of the older airlines to wonder whether they are in the right business. After struggling for years some of the old-line companies now have the following mileages: Mid-Continent, 3451 miles; Braniff Airways, 4831 miles; Chicago and Southern, 3079 miles; Continental, 2911 miles; National, 2632 miles; Delta, 5793 miles; and Capital, 4253 miles.

But it isn't all just a matter of mileages. The CAB seems bound, now, to provide mail pay of 60c a mile for the feeders. We believe in a feeder airline policy, and we believe in supporting local services through higher mail pay, BUT it would seem that the Board has placed itself far out on a limb by committing a tremendous amount of feeder route mileage at a 60c a mile rate when it is paying the old-time companies anywhere from 3c to 22c a mile for providing service along some equally sparse routes.

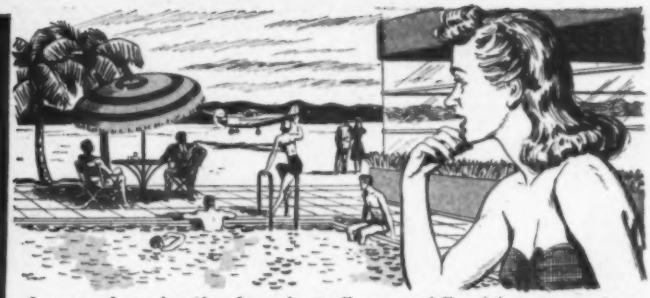
If the CAB will re-read some of its own opinions, it will find that it has been using as its reason for singling out a particular carrier for a route extension of a few hundred miles the fact that very little additional mileage is required. Contrariwise it has been turning down route extensions to certain carriers because the extensions involved too much additional mileage. And these actions are with carriers receiving rates from 3c to 22c per mile.

Yet the CAB very generously has committed itself to thousands of miles for a 60c a mile rate at the drop of a hat. One of these days soon Congress is going to ask why air transport costs so much in mail pay. The answer is going to be very simple to say and mighty difficult to explain. What started out as a feeder experiment has grown suddenly into a large-scale commitment which is grossly unfair to those who have had to wait years, at great legal cost, to get an extra hundred miles added to their low-cost systems, and who are being arbitrarily snuffed out of expansion prospects in their own backyards. It's a rather sorry state of affairs.

WAYNE W. PARRISH
AMERICAN AVIATION

Standard of California's

PLANE FAX



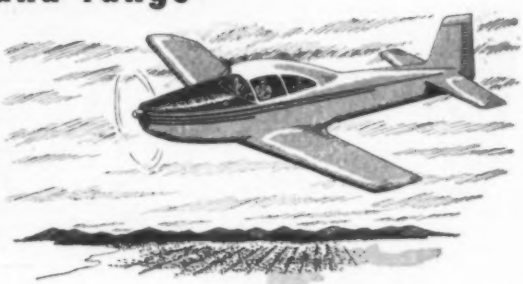
A page of service tips for private flyers and fixed-base operators

How to double the period between oil changes

Heat and oxygen are the things that damage ordinary aviation engine oil. They bring about a chemical change that causes sludge, making frequent oil changes necessary. RPM Aviation Oil, however, contains an oxidation inhibitor to help prevent the formation of gum and sludge. That's why, with "RPM" you can lengthen the time between oil changes to 50 hours or more, twice the usual change period.

High flyers get maximum speed and range

By cruising a light plane at from 6,000 to 9,000 feet you'll get higher speed and longer range. This is because lighter air density at high levels decreases drag. When flying above 5,000 feet lean the carburetor mixture until r.p.m. decreases, then enrich it enough to recover loss of r.p.m. For maximum efficiency, stick with Chevron Aviation Gasoline. It's balanced for all 'round performance.



Free flight calculators offered by Standard Airport Dealers

As an additional service, Standard Airport Dealers are now offering flyers new, improved flight calculators without charge. With this accurate flying aid pilots can easily check speed and distance traveled with allowances for temperature and altitude. Drop in for yours soon. Standard Airport Dealers throughout the West offer you complete one stop service.

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CHEVRON AVIATION GASOLINE

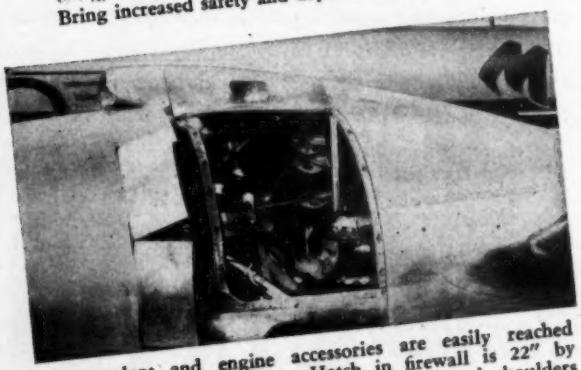
RPM AVIATION OIL

Famous Standard of California Products

World's leading twin-engine airliner, the Martin 2-0-2, features provisions for low-cost maintenance.

Easy to "Get At.."

Even the Martin 2-0-2's fuel cells are easily and quickly installed or removed. Tough, flexible Mareng fuel cells, an exclusive feature of the Martin 2-0-2, eliminate excessive riveting, intricate corner assemblies and troublesome metal work. Keep fuel cell maintenance costs at a minimum. Bring increased safety and dependability to the Martin 2-0-2.



Power plant and engine accessories are easily reached through large access doors. Hatch in firewall is 22" by 24"—large enough to admit a man's head and shoulders—and give access for servicing starter, generator, carburetor and other power plant accessories. Side opening facilitates major maintenance—saves time, cuts costs.

One hundred twenty servicing and maintenance access provisions. That's what makes the Martin 2-0-2 so easy to "get at." Conveniently located throughout the 2-0-2, numerous doors and hatches facilitate routine service and major overhauls . . . expedite non-scheduled repairs. Main illustration shows accesses to the prime maintenance compartments in the under-floor section of the fuselage. Each compartment contains a major maintenance location with accessories grouped according to class. Each is illuminated by built-in flood lights. Each is conveniently reached from ground-standing position. These and other built-in, time-saving features bring new, low-cost maintenance to airlines operating Martin 2-0-2's.

THE GLENN L. MARTIN CO., BALTIMORE 3, MD.

Martin
AIRCRAFT

Builders of Dependable Aircraft Since 1909

BACKGROUND & TRENDS

Revenue Outlook: Even with no increase in passenger traffic, domestic airline revenues for first quarter this year should be substantially above same period 1947. Passenger revenues will be up because of approximately 20% higher fares now in effect, freight income will be boosted by greater volume handled, and there is good possibility of CAB action on petitions for higher mail pay.

Safety Report: *The 165-page report of the President's Special Board of Inquiry on Air Safety, dealt with in detail elsewhere in this issue, is noteworthy for its cautious and workmanlike approach to safety matters and avoidance of specific recommendations. Much careful work went into the document, regarded as a credit not only to James M. Landis as his final report before leaving the CAB chairmanship, but to other members as well. The report did not live up to advance Washington speculation that it would be dominated by recommendations of Dave Behncke, president of ALPA.*

Parcel Post Pays: U. S. international carriers will welcome establishment of international air parcel post by the Post Office Department—as an additional source of needed revenue. A small example of how air parcel post pays: Switzerland sends this class of traffic to U. S. via TWA. In a recent month TWA hauled 3,164 lbs., and the 96c per ton-mile rate paid by the Swiss figured out to about $2 a pound. U. S. lines will get 75c per ton-mile from the U. S. abroad, but volume will be much heavier.

Warning: *Post Office Department has warned airlines that mishandlings of air mail are out of line with volume carried. Fines have been increased in some instances.*

Caution on Radio: U. S. Weather Bureau is trying to supply the kind of flying weather reports to commercial broadcasting stations which don't mislead airline passengers and yet tell private flyers what they want to know. What may sound like poor weather for private pilots may discourage airline patrons when airlines are flying on schedule. Some radio reports were using phraseology highly undesirable to airlines.

Higher Salaries: *Look for a concerted move to increase salaries of CAB members and the CAA Administrator. Goal is boost from present $10,000 per year to $15,000, and chances for success seem fairly good. CAA may lose T. P. Wright as Administrator unless salary goes up, and more than one prospect for CAB openings have refused because of low pay.*

Vanishing Sidelines: Few traces remain of non-aviation sidelines taken on or considered by aircraft manufacturers at end of war. Products involving sales organizations in the consumer field folded first or never got started; the few successful sidelines involve highly specialized products or equipment, or outright purchase of firms with established businesses.

Long Trips: *A psychological survey reported by North American Newspaper Alliance syndicate reveals preference for the automobile for trips of 500 miles and over but shows the airplane in second place as future choice. In response to question, "If the cost were the same, how would you go next time?", the replies were: auto 46%, air 29%, train 20%, bus 2%, ship 1%.*

Slow: By year-end CAA had made only 5 grant offers to local sponsors for construction of Class 4 and above terminal type fields, involving funds totaling only $1,703,835. A total of 127 grant offers involving $12,966,628 had been made under the Federal Aid Airport Program, mostly for smaller class airports.

Multilateral Delay: *Sir William Hildred, president of International Air Transport Association, does not believe another international multilateral conference will be possible within five years. By then the smaller nations, through medium of bilateral agreements, will be able to assess the possible injury or benefits which might be expected from Fifth Freedom traffic rights. In addition, Sir William thinks air cargo developments may well change the emphasis from passengers to freight on part of many smaller countries.*

Travel Boom: Number of passengers traveling for pleasure will be up 20% in first half of this year over same period 1947, according to forecast by American Express Co. In its travel survey, the company said that tourist-class passage for trans-Atlantic route was already "exceedingly tight" from May to August, with some lines sold out. It was estimated that last year 465,000 persons crossed the Atlantic on ships traveling between North Atlantic ports and Europe and the Mediterranean, compared with 163,000 carried by air.

Rail Forecast: *Latest estimates, issued by Association of American Railroads, predict that rail freight traffic in 1948 will be 2.6% below 1947, passenger traffic down 12.8%.*

Dollar Shortage: Ruling consideration in BOAC decision to replace Boeing 314A's with Constellations instead of with new British-built flying boats for U. S.-Bermuda service is company's great need for the thousands of U. S. dollars paid out weekly to maintenance force at Baltimore. Connies will be overhauled at BOAC's Montreal base, where payroll is met with British currency.

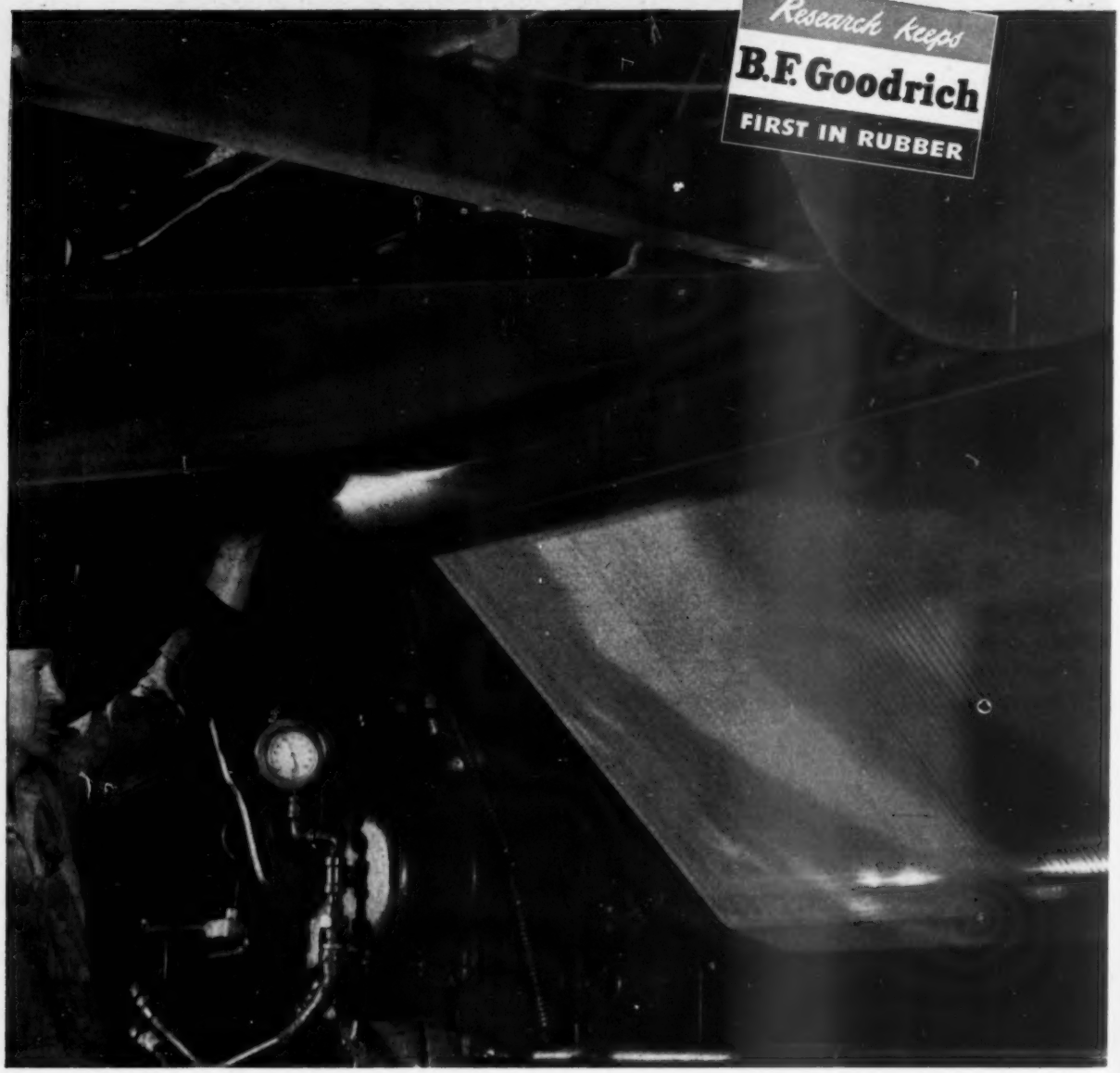
DC-4 Overhaul: *Douglas Aircraft Co. has indicated considerable interest in carrying out major overhaul work on DC-4's. Line maintenance would not be included. Latest cost quotation was $3.95 per hour for labor, plus cost of materials. The airline involved would furnish its own inspectors.*

Car Service: Some 15 scheduled airlines have made or are concluding arrangements with the Hertz Driv-Ur-Self System to provide, on telegraphic requests, car service for airline patrons. Service is primarily for business men. Rates range from around $4 a day or 7¢ a mile to as high as $7 a day or 10¢ a mile, depending on cost differentials between communities and in types of cars used.

Cargo Connie: *Lockheed is considering a cargo version of the Constellation, with larger doors, reinforced flooring, and installation of a cargo conveyor. Military officials are reported interested.*

Testing Continues: The 14-passenger, twin-engined Saturn which Lockheed designed for the local service and short haul market is still being tested by Lockheed. Company, which at one time reported 300 prospective orders, announced more than a year ago that all work had been suspended, except for development work on prototype.

Air Museum: *Officials of the Smithsonian Institution, charged with administration of a projected National Air Museum, plan to seek new funds from Congress to carry out various phases of the program. It was recently decided to establish the museum in Washington, in a structure on the Mall. Planes and equipment for the museum are now being earmarked throughout the country.*



It makes tires pay for themselves

THIS IS A PICTURE of the nylon cord with which B. F. Goodrich nylon airplane tires are made. Used in airliner tires it can make the tires more than pay for themselves.

That's because B. F. Goodrich nylon tires save weight and make possible increased payload. One leading airline reported that a change to B. F. Goodrich nylon tires produced an increase in revenue more than twice the cost of the tires themselves.

B. F. Goodrich nylon tires are widely used on many other types of planes, both commercial and military. In addition to weight-saving, they offer other outstanding advantages.

B. F. Goodrich nylon tires are stronger. A given size can carry higher inflation pressures, increasing the load capacity proportionally. Because nylon has excellent bruise resistance, maintenance of B. F. Goodrich nylon tires is reduced. And B. F. Goodrich nylon tires last longer, because of the extremely high fatigue resistance of nylon.

The use of nylon cord is another advance in B. F. Goodrich tire development. B. F. Goodrich engineers are working to develop even better latex processing of nylon cords, even greater abrasion resistance in tread compound. Their research will continue to produce B. F. Goodrich tires which give longer, better and cheaper service. *The B. F. Goodrich Company, Aeronautical Division, Akron, Ohio.*

B.F.Goodrich
FIRST IN RUBBER

Established June 1, 1937 **AMERICAN AVIATION** Volume 11 Number 16

Commission Offers Air Progress Plan

President's Policy Group Outlines Graphic Blueprint For Keeping U. S. Military, Civil Aviation Strong

By GERARD B. DOBBEN

A graphic blueprint for U. S. military and civil aviation, designed to keep this country strong in the air, was announced by the President's Air Policy Commission in a 166-page report made public Jan. 13.

Sweeping in scope and strong in its recommendations, the report was issued under the title of "Survival in the Air." The commission was headed by Thomas K. Finletter, New York attorney.

Equal attention is given military and civil. For the military it offers compelling urgency for strengthening the air arm of national defense. For civil it offers radical legislative changes and streamlining of government administration and financial aids for development of new commercial airplanes.

It is the most important aviation report ever issued and many of its recommendations undoubtedly will be followed up by President Truman and Congress.

On the civil side the commission recommends a governmental structure similar to the one adopted for the military with an over-all Secretary of Commerce and a Department of Civil Aviation underneath. It recommends a revival of the independent three-man Air Safety Board, and a new government agency, Aircraft Development Corporation, a five-man board to pay all or part of the development cost of cargo and other non-military planes, components, navigational aids and safety appliances.

It recommends that all safety functions be transferred from the Civil Aeronautics Board to the new Department of Civil Aviation, leaving the Board completely independent and dealing with economic regulation only.

Eventually, the commission feels, there should be a Department of Transportation under which all transport agencies should be located.

Military recommendations are in two parts. Phase I is for the next five years during which time this country will presumably have a monopoly of atomic weapons. Phase II is beyond that period.

Under Phase I the commission strongly recommends that the Air Force must be increased from its present level to a minimum regular establishment of 70 groups with 6,869 first-line aircraft, an Air National Guard of 27 groups with 3,212 first-line aircraft, and an adequately equipped 34 group Air Reserve. In addition, there would be 8,100 aircraft in reserve. This program would be completed by the end of 1952.

The commission believes the Navy air arm as now constituted is adequate except for the need for modern aircraft.

To complete the Air Force program by 1952, an increase in the Air Force budget from the present level of $2,850,000,000 to $4,150,000,000 for the calendar year 1948 and $5,450,000,000 for calendar year 1949 is necessary. This would require $1,300,000,000 in supplemental appropriations from Congress during fiscal 1948-49.

Military Transport Services

The commission recommends consolidation of all military transport services under the Air Force and an annual review of the Military Establishment by a commission of five members, appointed by the President and confirmed by the Senate.

With respect to aircraft manufacturing, the commission adopted the general range of requirements of the Air Coordinating Committee in its report of Oct. 22, 1945, with minimum purchase of military aircraft amounting to 30 million pounds of airframe annually and the upper level at 60 million pounds, based on the world picture.

Specifically it recommends military procurement of 36 million pounds in calendar year 1948 and 58 million pounds in calendar year 1949. It recommends orders for planes for delivery over a five-year period whenever possible.

The commission recommends greatly increased research and development with special emphasis on supersonic speed ranges and guided missiles. Construction of 16 supersonic tunnels and higher pay for scientists is also urged.

The following is a complete summary of Sections IV and V of the report dealing with civil aviation and government organization, taken direct from the commission's own summary of its report:

Section IV
Civil Aviation

The airlines are now passing through one of the most serious crises of their history. This situation is significant for two reasons. If not relieved, it will contribute to the deterioration of the airline service to the public. The second reason is that as a potential military auxiliary the airlines must be kept strong and healthy.

Although some airline problems of 1947 may differ from those of the pre-war period, the over-all situation is the same: The revenue from passengers and cargo, plus a revenue for the carriage of the mail roughly equal to the passenger rate, will not support the operations of many of the companies. If they are to continue in operation and start again up the ladder toward self-sufficiency, the Government will have to increase the mail rates.

The carriage by air of all first-class mail which can be expedited thereby and the inauguration of a parcel post by air should be given serious consideration by Congress when the airlines achieve a satisfactory regulatory status.

We have not gone into the technical aspects of safety because the President's Board of Inquiry on Air Safety has been extensively studying the problem. We recommend, however, that new types of transport planes be operated regularly on non-passenger schedules for a specified mileage before passengers are carried. We believe also that CAB economic control over contract carriers would tend to increase safety.

It is especially important to increase the regularity of service. Airlines will not have mass transportation until people are reasonably certain that they can depart and arrive on schedule. For safety and regularity a basic requirement is a nation-wide system of air traffic control, navigation, and landing aids. The Federal Government must accept the

financial burden of providing these aids until those who use them are in a financial position to pay their fair share of the cost.

Agreement must be reached as soon as possible by the interested private groups and responsible Government agencies on a common system of landing aids for immediate installation which will adequately serve both civilian and military needs. Government expenditure for electronic aids to air traffic control, navigation, and landing will do more than anything else to advance the airlines toward self-sufficiency.

We recommend that the Civil Aeronautics Board defer for a short time decisions in new route certification cases. This is not to be construed as a freezing of the present route pattern, which would certainly be undesirable. There is, however, a widespread confusion as to the principles which guide the CAB in route determinations. There is need for a comprehensive survey of the present situation. If the CAB does not develop a clear-cut plan for an over-all domestic transport pattern, the Congress should give serious thought to giving the over-all planning function of route development to the Secretary of Civil Aviation recommended in section V.

Question of New Carriers

Whether more common carriers of property should be certificated is for the CAB to decide. We believe that in making their decision the Board should avoid impairing the soundness of the existing air transport system by spreading the present and potential traffic among too many separate carriers. If the Board finds that the public convenience and necessity does require some additional common carrier operators, we hope that it will give weight to the records built up by any of those contract operators that have proven their ability to operate economically and efficiently and now desire common carrier status.

We recommend that the Civil Aeronautics Board prevent the control by surface carriers of the United States air transport system or any important segment thereof. We believe that individual progressive carriers, desirous of developing air transport as a part of a coordinated service, should not be automatically prevented from such action simply on the grounds that they are surface carriers. We recommend that the Congress enact legislation clarifying these two points.

We recommend that the CAB be given economic control of all air carriers for hire.

There is a real need for feeder airlines in those areas whose topographical features make surface connection between cities unsatisfactory. We recommend that the present experimental period for feeder airlines remain at 3 years. If it becomes evident that this period can be extended without burdensome cost in mail pay, we recommend extensions. We also recommend that new certificates, if any, be granted for 5 years.

We agree with the present CAB policy which favors limited competition among American operators on international routes. We do not approve the chosen instrument policy.

We regret the failure of the International Civil Aviation Conference in Geneva to agree on a multilateral treaty covering rights and obligations in international air operation. We feel, however, that this agreement should not be sought at the cost of abandoning the so-called Bermuda-type agreements in regard to the right to carry passengers between any two foreign countries on a route—commonly known as the Fifth Freedom.

The CAB should be given control over international rates.

A State-local aviation panel advisory to the Air Coordinating Committee should be established in order to give official recognition to State and local aviation organizations at the Federal level.

We recommend Congress appropriate each year the full amount of Federal funds permissible under the Federal Airport Act of 1946.

Where a question arises as to whether airport facilities are constructed with the aid of Government funds or through the use of private capital, an investigation should be made by the CAB. If it is found that Government funds were used, steps should be taken to make these facilities available to all United States civil aircraft at reasonable rates.

Section V

Government Organization

We recommend that the Government executive functions relating to civil aviation remain under the direction of the Secretary of Commerce who shall have immediately under him a Secretary of Civil Aviation in charge of a Department of Civil Aviation. The position of Administrator of Civil Aeronautics should be abolished and the functions, activities, and duties of the Civil Aeronautics Administration transferred to the newly formed department. We recommend that there be set up parallel to the Secretary of Civil Aviation a Secretary of Industry and Trade who would supervise a Department of Industry and Trade within the Department of Commerce. This would parallel within the Department of Commerce the pattern recently set up in the Military Establishment.

There should be established an Aircraft Development Corporation authorized to pay all or part of the development cost of cargo or other non-military planes, components, navigational aids, and safety appliances. The Corporation should also be authorized to make loans to manufacturers for development costs when it appears that such financing cannot be obtained from civilian sources.

There should be established an Air Safety Board within the Department of Civil Aviation to consist of three members appointed by the President subject to confirmation by the Senate. The Air Safety Board would be responsible for the investigation and analysis of air accidents and submit reports to the Secretary of Civil Aviation to be made public by him.

Independent CAB Urged

The promulgation of safety regulations should be transferred from the Civil Aeronautics Board to the Department of Civil Aviation, thereby combining in that Department the responsibility for the issuance and enforcement of safety regulations. This move would permit the Board to concentrate on its main function of economic regulation.

The Civil Aeronautics Board should continue to be an independent agency, located within the Department of Civil Aviation for housekeeping purposes only. The membership of the Civil Aeronautics Board should be increased from five to seven in order that the practice of the Interstate Commerce Commission of operating by divisions may be adopted. The salary of Board members should be increased to $15,000 a year. The staff of the Civil Aeronautics Board should be increased.

Sometime within the future, all executive transportation functions of the Government should be centered in the Department of Commerce under a Secretary of Transportation at which time the Secretary of Civil Aviation would be succeeded by a Secretary of Transportation. The independent semi-judicial bodies in the transportation field should however remain independent, and be brought into the Department of Transportation for administrative housekeeping purposes only.

The Secretary of Commerce should be a member of the National Security Council.

The Secretary of Civil Aviation should be chairman of the Air Coordinating Committee.

Commission Members

Members of the commission, in addition to Finletter, were George P. Baker, professor of transportation, Harvard University, vice chairman; Palmer Hoyt, publisher of the Denver *Post;* John A. McCone, Pacific Coast industrialist; and Arthur D. Whiteside, Dun and Bradstreet.

International Air Parcel Post

deSaint-Phalle Heads California Eastern

Gen. Kuter Named to Replace Landis as CAB Chairman

President Truman ended several months of speculation about whether he would re-appoint James M. Landis as chairman of the Civil Aeronautics Board by announcing Dec. 30, less than 48 hours before the expiration of Landis' term, that he had decided against keeping him on the CAB.

On Jan. 8 the President announced his selection as chairman of Maj. Gen. Laurence Sherman Kuter, 42, who has been the U. S. representative on the International Civil Aviation Organization at Montreal since September, 1946. Kuter wil be the sixth chairman of the CAB.

It was as quick a shift in leadership as the capital has seen in some time, with the President not even acknowledging his dissatisfaction of Landis with a letter thanking him for his service. It had been believed that the reappointment was a certainty until the last few days, although it was known that most airlines and some government agencies were opposed to his continuing.

Primary background in the Landis matter was a long-smouldering difference of opinion with Secretary of Commerce Averell Harriman, who has wanted to exercise more control over CAB. In a public statement issued Dec. 31, Landis said he hoped that CAB would remain independent. Former dean of the Harvard Law School, Landis was one of the last of the Roosevelt New Dealers in high public office, and had succeded L. Welch Pogue as chairman on June 19, 1946.

Quick Action Sought

President Truman asked Congress for quick legislation enabling him to name Gen. Kuter to the post without affecting his military status. This is similar to the legislation that was necessary for Kuter's ICAO appointment.

At the same time the President made it clear that Gen. Kuter would be subject to no supervision or control by any branch of the armed services.

There was still no word on appointment of the fifth member of the CAB. This position has been vacant since the resignation of Clarence Young on Oct. 16.

Truman's choice for the new chairman, who would be named for a full six year term, has had a distinguished Army career. Born in Rockford, Ill., May 28, 1905, Kuter was graduated from West Point in 1927 and went into the Air Corps, being successively promoted in this branch until he became major general Feb. 2, 1944. He is a command pilot and one of the Air Force's youngest two-star generals.

Maj. Gen. L. S. Kuter

He was a member of the War Dept. General Staff's air branch, operations and training division, 1939-41; secretary of the general staff until Mar. 23, 1942; deputy chief of staff Feb.-Oct., 1942; deputy commander Northwest African Tactical Air Force during the Tunisian campaign; assistant chief of air staff for plans, June, 1943 to May, 1945; deputy commander AAF Pacific Ocean area and duty with U. S. Army Strategic Air Forces in Pacific, May-July, 1945; commanding general, Atlantic division, Air Transport Command, from September, 1945. He holds numerous decorations.

PAA Proposes 10% Fare Increase in Latin America

Pan American Airways, on behalf of itself and affiliated Latin American carriers, has filed with the Civil Aeronautics Board new tariffs, effective Feb. 1, which will raise fares approximately 10% from slightly under 8c per mile to slightly less than 9c per mile.

The tariff revisions would apply for Pan American-Grace Airways, Panair do Brasil, Avianca, UMCA and other PAA affiliates, as well as the PAA Latin American Division.

Florida Airways Raises Fares

Florida Airways has filed with the Civil Aeronautics Board a new tariff, effective Jan. 15 over its entire system, increasing fares by approximately 10%.

DC-6 Grounding Costs Lines More Than $12,000,000

Estimates received from three airlines indicate that grounding of the Douglas DC-6 will have cost the operators of this equipment over $12,000,000 by the time the planes are back in the air.

The airlines queried pointed out that there were many items that necessarily entered into making such estimates, and it is probable that each one used a different set of figures. Estimates from the three airlines were:

American Airlines—Losing $350,000 weekly on its 38 airplanes. Assuming a return to service by Mar. 1 (grounding was effective Nov. 12) this loss would be between $5,000,000 and $5,500,000.

United Air Lines—$7,000,000 loss of revenue estimated from time of grounding until planes are back in service. However, the company states that this will be partially offset by economies effected by management, personnel reductions, and income tax credit, which makes an estimated $4,000,000 cash operating loss for the period. United has 34 DC-6s.

National Airlines—Losing $30,000 per day. The company has four DC-6s.

Added to this will be the losses of Braniff Airways and Pan American-Grace Airways, the other operators of DC-6 equipment.

Jim Ray Plans to Leave Southwest Airways Soon

Although he will remain as a director, James G. Ray is planning to resign shortly as vice president of Southwest Airways to devote his time to the broad field of feeder or local service airlines. A champion and spokesman for the feeder airline for a long time, and largely responsible for getting Southwest underway, Ray will either set up a consulting office in Los Angeles or attach himself temporarily to other feeders needing his help.

John H. Connelly, president of Southwest, is moving from Phoenix, Ariz., to the airline's new headquarters in San Francisco.

American Cuts Back Convair Contract from 100 to 75

American Airlines has reduced its order for twin-engined Convair Liners from 100 to 75, decreasing from 178 to 153 the number of transports which Consolidated Vultee Aircraft Corp. now has listed for production under firm contracts. With cancellation of the 25 planes, the manufacturer is about at the half-way mark toward its goal of at least 300 Liners which company officials have indicated must be sold to show a profit on the transport investment.

SHAKE-DOWN

International Air Parcel Post To Boost Airline Revenues

Plans for early inauguration of air parcel post service between the United States and a number of foreign countries and for carrying U. S. newspapers and news magazines to Europe under special postage rates are being worked out by the Post Office Department, under the guidance of Second Assistant Postmaster General Paul Aiken.

In addition to expediting the dissemination of information and facilitating international commerce, the two plans are expected to bring substantial revenues to U. S. air carriers operating overseas.

Initially, the airlines will receive for the carriage of air parcel post the 75c per ton-mile rate now in effect between the U. S. and European gateways for regular air mail, but the Civil Aeronautics Board probably will be asked later to set a special rate. Since the carriers operate on a per-mile rate beyond U. S. gateways, with no base load, this portion of the flights will not result in any expense to the Post Office.

The international air parcel post can be established without Congressional action provided there is a bilateral agreement. The points where it is anticipated provisions for the service can be jointly agreed upon include: United Kingdom, Continental Europe, Bermuda, Newfoundland, Azores, Iceland, Senegal, Gold Coast, Belgian Congo, Union of South Africa, Algeria, Tunisia, Egypt, Palestine, Saudi Arabia, Syria and India.

Early Ratification

Ratification of agreements with the respective foreign countries instituting the service, and the effective dates, will be announced as soon as they are worked out and accepted by the nations involved. Post Office officials thought necessary details for at least a few countries could be worked out by early February.

It was pointed out by Aiken that when the new service is inaugurated, parcels will be accepted at any post office in the U. S. for shipment by air to those countries which have agreed to avail themselves of the service. Such parcels will receive all available service by air in this country from place of mailing to airport of embarkation, with domestic carriers receiving regular mail rate pay for their service.

Under the plan regarding news publications, such newspapers and magazines would go first to a small number of countries in Europe near the "Iron Curtain," with the service being extended later to all other nations.

Establishment of this service will entail the working out of three important details: (1) acceptance of the nations concerned must be obtained; (2) a postage rate must be set for this class of mail, and (3) the Civil Aeronautics Board must set a special rate of mail pay which the airlines will receive for carrying the publications.

Both the Post Office Department and the State Department are understood to be working on this plan.

Wisconsin-Central to Begin Midwest Feeder Service Feb. 1

Wisconsin-Central Airlines on Feb. 1 is scheduled to become the ninth feeder of local airline to begin operations. It will serve 15 of its 35 certificated route points initially, service to others being delayed indefinitely because of airport inadequacies.

Using Lockheed (Electra) 10-A's the company will start operations with five southbound and four northbound flights daily over selected route segments. Included will be a daily round-trip flight between Madison, Wis., and Chicago, between Chicago and Chisholm-Hibbing, Minn., and between Chisholm-Hibbing and Minneapolis-St. Paul.

Other services will be: a Madison-Milwaukee non-stop, a flight from Minneapolis-St. Paul to Madison, and a flight from Milwaukee to Minneapolis-St. Paul.

Intermediate points to be served initially will include: Wausau, Wis.; Rhinelander, Minn.; St. Cloud, Minn.; Eau Claire, Wis.; Duluth-Superior, Minn.; Stevens Point-Wisconsin Rapids, Wis.; Baraboo Portage, Clintonville, Oshkosh and Racine-Kenosha.

Company's total certificated route mileage is 1,704 miles, which it was awarded in the North Central Case decision of December, 1946, subject to a showing on adequacy of airports and on divorcement from the Four Wheel Drive Auto Company. The CAB accepted its showings in early October and awarded it a certificate.

UAL and Pilots Resume Negotiations for Contract

Resumption of negotiations between the pilots and management of United Air Lines over grievance machinery to be included in a new wage contract was scheduled for Jan. 14 in Chicago. W. A. Patterson, UAL president, was to meet with UAL's Master Executive Council, Air Line Pilots Association.

deSaint-Phalle Heads California Eastern

Andre de Saint-Phalle, New York investment broker, has been elected president of California Eastern Airways and will devote full time to the airfreight carrier. He will establish offices at company's headquarters in Oakland.

In another administrative move Alvin P. Adams has relinquished the chairmanship of the board of Cal Eastern in order to give more time to his aviation consulting business. He took over active direction of the carrier following the resignation of J. J. O'Brien as president last October. Adams will retain his holdings in the company and continue as a director.

Aviation Calendar

Jan. 15-18—Southeastern Soaring Contest, Sanford, Fla.

Jan. 26-28—CAA and non-scheduled operators of Region Four, Ft. Worth.

Jan. 26-28—American Road Builders' Association convention (including airport group, Jan. 27) Washington.

Jan. 26-29—Institute of the Aeronautictal Sciences 16th annual meeting, Hotel Astor, New York. (Jan. 27—Air Transport program).

Jan. 26-30—American Institute of Electrical Engineers, Hotel William Penn, Pittsburgh.

Jan. 28-30—ATA Ground Equipment Committee, Chicago.

Feb. 5—American Legion national aeronautical conference, Wright Field.

Feb. 13—Reunion of Air Transport Command men, Waldorf Astoria, New York.

Feb. 16-17—Second annual Purdue Airport and Fixed Base Conference, Purdue U., West Lafayette, Ind.

Feb. 17-19—ATA Meteorological Committee meeting, Peabody Hotel, Memphis, Tenn.

Mar. 26—IAS National Flight Propulsion Meeting, Hotel Carter, Cleveland.

Apr. 4-8—Nineteenth annual convention American Association of Airport Executives and second annual showing of American Airport Exposition, Congress Hotel, Chicago.

June 21-25—American Institute of Electrical Engineers summer meeting, Mexico City.

July 31—Opening of International Air Exposition (New York's golden jubilee), Idlewild airport.

Sept. 2—Federation Aeronautique Internationale, Cleveland.

Sept. 4-6—National Air Races, Cleveland.

International

March 8—ICAO Maps and Charts Division, Brussels.

March 30—ICAO Personnel Licensing Division, Montreal.

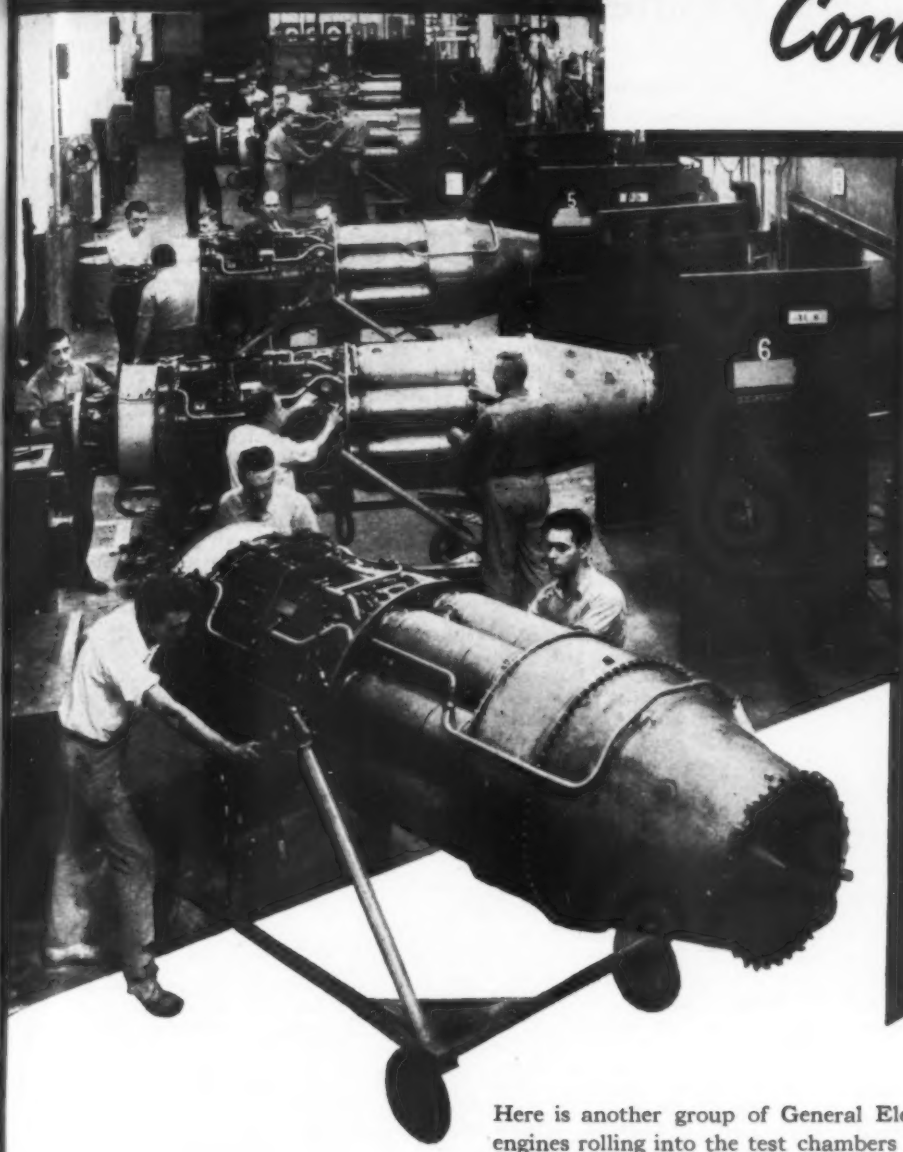
April 20—ICAO Rules of the Air and Air Transport Control Division, Montreal.

April 27—ICAO Facilitation Division meeting in Europe.

June 1—Opening of Second ICAO Assembly, Palais des Nations, Geneva. (About 3 weeks).

Sept. 8—ICAO Operations Division, Montreal.

SHAKE-DOWN
Coming up



Here is another group of General Electric's torpedo-shaped TG-180 jet engines rolling into the test chambers at our aircraft gas turbine factory in Lynn, Mass. In its test chamber, every jet engine gets a full-power "shake-down" run. Then, like any aircraft engine, it is dismantled, inspected, reassembled, and given a final test before shipment.

All types of electric aircraft equipment, in addition to jet engines, are built by General Electric. Part of G.E.'s line of electric aircraft equipment includes: generators—complete power systems, turbosuperchargers, explosion-proof motors and control, gas turbines, flight recorders, instruments, ignition systems, specialized electrical equipment. When you need a complete power or ignition system, or a single instrument, or when a specialized application requires individual attention, we'll be glad to arrange to supply it for you. *Apparatus Department, General Electric Company, Schenectady, New York.*

PRECISION PRODUCTS AND ENGINEERED SYSTEMS FOR AIRCRAFT

GENERAL ELECTRIC

ACI Prepares for Deep Cut Into Rail Express Business

Looking toward the time when they expect to cut deeply into the rail express business, airlines affiliated with Air Cargo, Inc., have taken the first step toward abolishment of the division of air cargo into the two separate categories of air freight and air express.

As a preliminary move in this direction, the cargo service organization of the certificated airlines has been instructed by its directors to forego or at least soft-pedal use of the phrase "air freight" and stress in advertising and otherwise the fact that ACI member airlines are in the business of transporting "air cargo."

With contracts for performance of pick-up and delivery of air cargo for its members already in effect at some 40 important stations scattered throughout the country, and with many other contracts in process of negotiation, Air Cargo, Inc., expects by mid-1948 to be able to offer to shippers a uniform, economical and adequate pick-up and delivery service.

"We will be offering shippers the same service on any shipment, whether it be a pair of shoes or a refrigerator, so it won't make sense for us to advertise an air express service and a separate air freight service," said an ACI spokesman. "We will therefore concentrate our efforts toward selling the shipping public on the advantages of air cargo."

In line with this decision, ACI was directed to have all trucks used exclusively in the pick-up and delivery of air cargo for its members painted in a standard red, white and blue pattern, with the words "Air Cargo" played up. A winged white "A" has been adopted as the industry's official emblem or insigne and will be featured not only on these trucks but also on stickers, in airline advertising, on posters and through other media.

In the matter of cartage, ACI's operating experience during the few months such agreements have been in effect has not indicated conclusively whether it is preferable to deal with the operator with a large fleet or with the small owner-operator. Varying circumstances and conditions make it doubtful that any general rule will ever be applicable.

Future experience, it is thought, may even suggest that at certain large stations and under certain conditions ACI would need to provide special cartage services designed to fit the special operating requirements and service standards of individual carriers. However, as to the general principle of joint pick-up and delivery service for air cargo, ACI's December interim report says this "is believed to be unquestionably sound in the great majority of cases."

Meanwhile, the report points out, "it is clear that the air carriers are obtaining cartage services at less cost under the ACI contracts than under the pre-existing individual arrangements." Also, it said, the measure of available service today is much greater than before, with ACI contracts calling for several times as many scheduled daily departures from the airports for incoming traffic and arrivals for out-bound traffic as has been the case.

With regard to the operation of consolidated cargo terminals, its other principle function, ACI's report frankly admitted that the initial experiment at Detroit's Willow Run Airport has not made an impressive showing to date because of numerous handicaps, including faulty planning, insufficient personnel and inadequate space. Despite these difficulties, it stated, the Willow Run operation "should soon arrive at the point where its duplication should be to the best interest of the carriers at stations of a certain type."

As to the general future of consolidated air cargo operations, the report said further practical experience may show that, at certain points, ACI's greatest contribution in this field would be in the procurement and maintenance of the physical space within which individual terminal operations could be conducted, and the integration of such operations with ground transportation. Air cargo terminal operations should be conducted in the same physical space, in ACI's opinion, if for no other reasons than its effect on pick-up and delivery costs and the opportunities it affords to eliminate deficiencies in handling of interline freight at transfer points.

For the immediate future, ACI is opening early this year in downtown Manhattan the first downtown joint air cargo terminal in the country. It also is working toward early opening of consolidated airport facilities at San Francisco and Chicago.

Preliminary planning has begun on promotion activities aimed at stimulation of joint air-motor truck business. Working to simplify the quoting of a total charge for a through service ACI personnel soon will appear before motor carrier tariff bureas to assist in establishing all-commodity proportional rates based on present first-class rates, applicable to shipments having a prior or subsequent movement by air.

The report indicated that several proposals now before the administrative committee and the board of directors are expected to establish revenues commensurate with various service workloads of the organization and aimed at making ACI self-sustaining during the next three to five-year period.

CAB Approves ACI

The inter-carrier agreement setting up Air Cargo, Inc., has been approved by the Civil Aeronautics Board, which left the door open for "future reconsideration" should the extension of terminal operations of ACI have a substantial adverse effect on airline employes at a particular airport or place.

The Board's approval in effect gives Air Cargo, Inc., a green light to develop handling of all ground phases of cargo transport by 17 certificated air carriers, on condition: (1) that Air Cargo, Inc., and its member carriers supply CAB with such agreements, documents or information as may be requested by the Economic Bureau, and (2) "that any holder of a certificate of public convenience and necessity issued by the Board authorizing transportation of property by aircraft be authorized to participate in Air Cargo, Inc., as a matter of right."

New Airline Cost Formula Planned for Willow Run

Costs and operations of the consolidated airlines terminal service at Willow Run Airport have been undergoing scrutiny for the past two weeks by a special airline committee, and a new cost-allocation formula based on this committee's findings is expected to be announced before Feb. 1.

The committee, composed of picked engineering and operations personnel of the seven airlines using the terminal, is headed by Milton W. Arnold, vice president—operations and engineering of the Air Transport Association.

The study grew out of announcements of Chicago and Southern Air Lines and Capital Airlines of plans to withdraw from the consolidated Willow Run terminal operation because of dissatisfaction with the present assessment formula.

Officials of Capital said operation of 36 schedules a day out of Willow Run was costing the line six or seven times what it would cost if operations were on an individual basis. Because of its high number of schedules, they said, Capital is in a position to obtain almost maximum utilization of its own personnel. Chicago and Southern, on the other hand, desires to withdraw because operation of its three schedules costs too much under the present pay formula.

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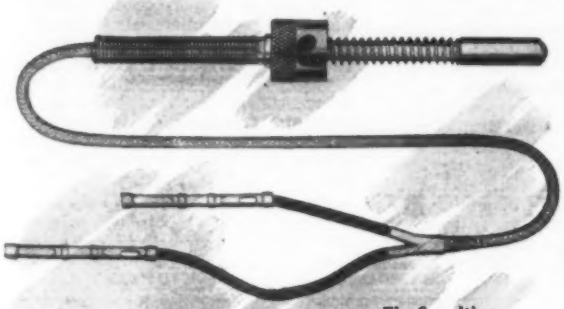

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ALPA Attacks CAA At Sisto Hearing

The controversial question of whether testimony voluntarily given by a pilot in a preliminary company accident inquiry may later be used against him in a CAA complaint hearing is due for official consideration when the complaint against Capt. Charles R. Sisto, of American Airlines, reaches the Civil Aeronautics Board. The issue arose at last month's hearing into the formal CAA complaint against Sisto, who allegedly admitted at a company fact-finding inquiry that he had engaged the gust lock of the American Airlines plane that went into an outside loop over El Paso last Oct. 8.

W. P. Kilgore, executive vice president of the Air Line Pilots Association, appearing as counsel for Sisto, said he would not put the pilot on the stand because he was not being given a fair hearing. He denounced the CAA and branded the hearing as an attempt to "stab this poor sucker in the back."

The CAA complaint against Sisto brought out that twice before he had been suspended, once for flying too low over a crowd and once for carrying an intoxicated passenger, and also that Sisto's flight medical certificate was invalid at the time of the upside-down flight. Ervin M. Townsend, of the CAB's Safety Bureau, testified that Sisto had voluntarily signed a "supplemental statement" which cited activation of the gust lock as cause of the DC-4's unorthodox maneuver.

Kilgore objected to any testimony from Capt. John Beck, check pilot, regarding the company hearing held at El Paso on Oct. 15, and made the blunt threat that pilots belonging to ALPA would refuse to cooperate voluntarily in future accident inquiries if their testimony is later to be "used to hang them." He also warned of a pilot boycott of preliminary safety hearings unless the pilot involved is accompanied by counsel.

The ALPA official said he is prepared to carry the case to a Federal court if necessary. The pilots take the position that it not only is unfair for the CAA or CAB to use confidential, within-the-company information against them, but they hold it also will weaken safety progress by influencing pilots to hold out information for self-protection.

American Issues Travel Study

American Airlines has issued a factual study of time, costs, and comfort in business travel covering factors entering not only into air transportation but into other modes of travel as well. Copies available from AA at 100 E. 42nd St., New York.

20-Year Airline Veteran:

Walt Swan Rates High as Junior Executive

D. Walter Swan (see cover photo) who is now celebrating his 20th year in scheduled air transportation, is typical of many junior executives who remain out of the limelight but who have made the industry what it is today.

There aren't very many 20-year men in the airline business but the few who have been around that long have accumulated experience that makes them extremely valuable to continued progress of the industry. Swan, like some others who have grown up in the business, has survived the many mergers and changes which featured the earlier hectic days of the industry.

Today he is special assistant to the president of United Air Lines, but during the 20 years in the industry he has been with no fewer than nine different airlines. This doesn't mean that he jumped about from company to company on his own accord, but it does mean that during the earlier years of the industry companies merged with such rapidity that it is a rare executive in the airlines today who can look back on a two-decade record with a single company.

Swan's first job was in the traffic department of Stout Air Lines in 1928. This fragile little pioneering line began operating between Cleveland and Detroit but in 1930 it merged with National Air Transport. After a few months with NAT, Swan joined Century Air Lines as district traffic manager in Cleveland and remained here during 1931 and 1932. Century was then flying Cleveland-Chicago, Chicago-St. Louis and Chicago-Detroit. But in 1932 Century was swallowed by American Airways and after a brief period with the new concern, Swan moved over to Pennsylvania Air Lines as d.t.m. where he remained until 1934.

This latter year was the year in which P.A.L., headed by C. Bedell Monro, lost its mail contract when the general cancellation took place. So Swan headed for Chicago where he joined Transcontinental & Western Air where he remained until 1936 when he was asked to become vice president in charge of traffic for Central Airlines which had the mail contract on the route paralleled by P.A.L.

This job lasted nine months, because then the P.A.L.-Central merger took place, but during those 9 months Swan boosted traffic from 500 passengers a month to 3000 a month. While at Century, Swan paid the first bonus ever paid in the industry to traffic men —1% of the gross.

He lost out in the merger of the two airlines so he joined United Air Lines as traffic manager for Pittsburgh, an off-line point. This was in 1936. A year later he was sent by United to Washington, D. C. as district traffic manager.

In 1940 he was pulled out of traffic to learn public relations and since then he has handled many special assignments from the president's office. Not long ago he was at the scene of the Bryce Canyon accident directing much of the work of handling relatives and arrangements for burials, etc. More recently he handled the United charter for Harold Stassen, the Republican Presidential aspirant.

He's now 41 and one of the real veterans of the airline industry and one of the smartest public relations men in the business.

TWA-Delta Interchange At Cincinnati Approved

An agreement permitting TWA and Delta to make equipment interchanges at Cincinnati, where they have maintained connecting services since 1941, has been approved by the Civil Aeronautics Board.

The Board said it could see valuable benefits accruing from an experiment in interchange operations as a means of expanding one-plane service "without the necessity of extending authorizations of existing carriers where such extensions are not justified by the traffic potential." The TWA-Delta interchange provides through single-plane service between Detroit, Toledo and Dayton (TWA Route 58 points) and Atlanta, Miami and other Delta points.

TWA is training its personnel in the use of the Delta DC-3's and DC-4's, whose instrumentation differs from its own aircraft, but CAB indicated that if CAA thought it advisable from a safety standpoint to keep flight crews with their respective employers' planes, it would "look with favor on amending the agreement in conformance therewith."

Group Insurance, Trust Fund Established by Florida Airways

Florida Airways has established a blanket group insurance plan and a $12,000 trust fund for benefit of its employes.

A donation of Florida Airways stock set up the trust fund, which will be administered by trustees to be elected by company employes. Profits from dividends, interests and other sources will be used for loans, grants and other purposes of the fund. The blanket insurance coverage will be converted to individual policies for each employe, providing for death benefits, double-indemnity payments for off-the-job accidents, sickness and accident benefits, and for hospital, medical and surgical expenses, the latter also being available to dependents of employes.

CAB Briefs

Stops Abandoned: Civil Aeronautics Board, in the first route abandonment case to come before it, approved elimination of Burwash Landing, Yukon Territory, Canada, and Tanacross, Alaska, from Pan American Airways' Fairbanks-Whitehorse route at the carrier's request. Added in 1942 by CAB order, the two points were only flag-stops.

CAL Application: Continental Air Lines has applied for extension of Route 29 to provide a southern trunkline service between New Orleans and the West Coast, or for a new route branching off at Phoenix, with one segment running to San Diego and Los Angeles and another to San Francisco-Oakland. It also seeks another extension of Route 29, or a new route, from Denver to Phoenix.

Freight Hearing: Hearing on investigation of Consolidated Air Freight Tariff Agreement, originally scheduled for Jan. 5, was postponed to permit more time for preparing cases after agreement investigation had been consolidated for hearing with separate but parallel proceeding involving Air Cargo, Inc.'s general Air Freight Rules Tariff.

Temporary Exemption: A temporary exemption order issued by Board authorizes Northern Consolidated Airlines, Inc., of Anchorage, Alaska, temporarily to perform air transportation service for which Ray Petersen Flying Service, Northern Airways, Walatka Air Service and Northern Air Service have been certificated. Northern Consolidated has pending a proposal for acquisition and consolidation of routes of the other carriers.

PAA Suspension: Pan American Airways has been authorized by the Board to suspend service temporarily at Coro, Venezuela, until Venezuelan government grants it permission to serve Coro through use of La Piedra Airport, or until final decision is issued by CAB on Pan Am's application to substitute Aruba, N.W.I., for Coro on its Balboa-Port-of-Spain route.

Pioneer Complaint: Following a complaint by Pioneer Air Lines, the CAB has begun a proceeding to find out whether the public convenience and necessity require modification of Braniff Airways' Route 9 certificate to include a restriction against non-stops between Lubbock and Austin, Amarillo and Austin, Amarillo and Houston and Lubbock and Houston.

Sante Fe Petition: A joint petition for rehearing and reconsideration of the Board's order of Dec. 5 denying temporary common carrier authority by letter of registration to Santa Fe Skyway, Inc., has been filed by the contract air freight operator, and the Atcheson, Topeka and Santa Fe Railway Co.

Violation Denied: Replying to CAB's show-cause order regarding certain flights between Anchorage and Seattle, Alaska Airlines denied it had violated any part of the Civil Aeronautics Act or the Board's regulations, but consented to a cease and desist order "to avoid becoming involved in lengthy and costly hearings and related proceedings."

AAA Mail Rates: Mail rates set by CAB in a recent decision allow all American Aviation a 7% return on allowable investment for a past period dating back to 1945 and an 8% return after taxes for a future period. For the period May 28, 1945, to Aug. 31, 1946, carrier was allowed a rate of 48.50c per revenue plane mile flown, and for the period beginning Sept. 1, 1946, was allowed 54.70c per revenue plane mile, based on present schedules of two daily round-trips over company's pick-up mail route.

CAB Actions

Dec. 19—Order making effective temporary mail rates for Pennsylvania-Central Airlines.

Dec. 19—Decision setting past and future mail pay rates for All American Aviation, Inc. (Docket 1906¾)

Dec. 22—Decision establishing sliding-scale mail rate for Continental Air Lines.

Dec. 30—Decision approving equipment interchange agreement between Delta Air Lines and Transcontinental & Western Air.

Jan. 5—Order approving 17-airline agreement setting up Air Cargo, Inc. (Agreement C.A.B. No. 1041).

Jan. 6—Order modifying mileage base in Chicago and Southern's mail rate formula to effect slight increase in mail pay. (Dockets 1335 and 1897).

Jan. 6—Order requiring Alaska Airlines to cease and desist from all but irregular operations between Alaska and the U. S. (Docket 3209).

Jan. 7—Order making slight increases in mail pay for Pan American Airways' Latin American Division; rejecting certain objections filed by PAA; and reopening portions of the rate case for further consideration. (Docket 1593).

Calendar

Jan. 15—Hearing on application of China National Aviation Corp., for authority to serve Okinawa on its trans-Pacific foreign air carrier permit route. (Docket 3204).

Jan. 19—Hearing on proposed Economic Regulation 292.7 on exemption of air carriers for cargo service between the U. S. and Alaska. 10 a. m., e.s.t, Room 5042, Commerce Building.

Jan. 19—Hearing on applications of Braniff Airways and Chicago and Southern Air Lines for removal of restrictions on Chicago-Houston service. (Dockets 1681 and 1798). Examiner Warren E. Baker.

Jan. 27—Hearing on applications of TACA, S. A. (El Salvador) for renewal of San Salvador-Miami and San Salvador-New Orleans Foreign Air Carrier Permits. (Dockets 3016 and 3017). Examiner William J. Madden. Postponed from Jan. 5.

Feb. 2—Hearing on CAB's consolidated investigation of Freight Rates and Tariffs. (Docket 1705 et al.) Examiner Herbert K. Bryan.

Feb. 4—Hearing on route consolidation proposals of Continental Air Lines, et al., Dockets 576, 994, and 3109. Examiner Paul N. Pfeiffer. Postponed from Jan. 19. Tentative.

Feb. 16—Hearing on application of Mid-Continent Airlines for an alternate St. Louis-Twin Cities Route. (Docket 1050). Examiner Richard A. Walsh. Tentative.

Feb. 16—Hearing on applications proposing additional service in New England. (Docket 1279 et al.) Examiner Edward T. Stodola. Tentative.

Feb. 21—Hearing on Mid-Continent Airlines' proposed Minot-Regina extension. (Docket 628). Postponed from Dec. 8 at MCA's request.

Mar. 1—Hearing on applications proposing additional Intraterritorial Service in Hawaii. (Dockets 2390 et al.) Assistant Chief Examiner Thomas L. Wrenn.

* * * *

$40 Million Loss Indicated For Three British Airlines

A combined loss of approximately £10,000,000 ($40,000,000) for the three nationalized British airlines during the fiscal year ended Mar. 31, 1947, is indicated in reports from London.

First intimation of the extent of the loss came when British European Airways in late December filed its financial statement, showing a loss up to last Mar. 31, after just eight months of operations, of £2,157,937 ($8,696,486). Then British Overseas Airways Corp. early this month issued a statement reporting its loss for the fiscal year ended last Mar. 31 as £8,076,844 ($32,549,681), or about $250 for each passenger carried.

This brought the combined BOAC-BEA loss to $41,246,167. The third of the trio of state-owned corporations —British South American Airways— had not reported, but was expected to show a slight profit. This probable profit, however, was not expected to bring the combined loss of the three corporations within the direct subsidy of $40,000,000 provided for them in the Civil Aviation Act. If it does not, the difference presumably will come out of the funds for the present fiscal year, also $40,000,000. The subsidy set for the fiscal year beginning next April 1 is reduced to £8,000,000 ($32,000,000).

The *Times* of London commented that "the airlines will have to do better financially or make drastic economies." A Reuters dispatch contained one forecast: that the three government-supported corporations might be changed to one corporation, or to three operating units under one directorate.

Need New Aircraft

BOAC attributed a large part of its loss to the fact that most of its aircraft (converted military planes), except the five Lockheed Constellations, were obsolete and uneconomical.

"There is only one conclusion," its report said. "Heavy deficits will inevitably continue until the corporation has the aircraft and facilities to make it financially self-supporting in a highly competitive international business."

It was reported that BOAC carried 129,928 passengers during the fiscal year and performed 276,000,000 passenger miles and 3,598,384 freight ton-miles.

British European Airways' report for the first eight months of its operations showed revenues of £1,206,045 ($4,860,361) against expenses of £3,300,984 ($13,302,965), leaving a deficiency of more than $8 million.

The Edmonton *Journal*, in an article from its London bureau, pointed out that the BEA loss amounted to about $120 per passenger carried. BEA, it said, "spent more money on administration and other unproductive work than it did in actually running its airplanes."

TCA Passenger Traffic Up 50%, Air Cargo 35%

Increases of 50% in passenger traffic and 35% in air cargo volume for 1947 over 1946 are reported by Trans-Canada Air Lines.

TCA's 1947 expansion program included: addition of more than 1,200 miles to its route system; extension of service to six cities not previously served; increasing the number of inter-city and trans-Atlantic flights, enlarging its fleet and opening new ticket offices.

In domestic service, Trans-Canada carried 440,000 passengers in 1947, 2,500,000 pounds of mail, and 1,500,000 pounds of cargo. The last two months' traffic was estimated. Over the Atlantic, 15,000 passengers, 140,000 pounds of mail and 230,000 pounds of cargo were carried.

Trans-Canada's domestic fleet now consists of 30 DC-3's and 13 Lockheed Lodestars, with the latter gradually being taken out of service and sold. In addition, the company has taken delivery on 15 Canadian-built four-engined North Stars, and expects to receive others this year. Six of these are non-pressurized and will be relinquished when the company has its full fleet of 20 pressurized aircraft.

Pressurized DC-4M2's are scheduled to go into service soon, possibly Feb. 1, on TCA's transcontinental route. When sufficient aircraft of this type are available, they will replace DC-4M1's on the trans-Atlantic service. The new North Stars will cut westbound flying time between Montreal and Vancouver from present 18 hours to just over 12, and eastbound time to about 11 hours. Douglas DC-3's will continue to be used on intercity services and some will be converted to all-cargo planes.

Trans-Australia Reports $1,633,000 Operating Loss

Trans-Australia Airlines, a government-owned company operating in competition with privately-owned airlines, lost £505,927 ($1,633,132) in the first year of its operating life, according to a report filed with the House of Representatives.

Covering the period from September, 1946, through last June 30, the report lists expenditures of $4,984,027, against revenues from all sources totaling $3,350,893. Accumulated losses of the company to date were $1,650,976.

During the 10-months period covered in the report, TAA flew 3,951,409 miles, carrying 146,588 revenue passengers, 2,575,328 pounds of freight and 868,672 pounds of mail, free from accident. Personnel at end of the period numbered 2,392, including 149 pilots.

Foreign Air Briefs

Sweden: A new and faster version of the twin-engined 24-32 passenger Scandia transport plane has been announced by Svenska Aeroplan Aktiebolaget (SAAB Aircraft Co.), of Linkoping, Sweden. Called the SAAB-90A2, the new version—of which 10 are already under construction—has Pratt & Whitney R-2180 engines of 1,650 hp each and is equipped with reversible propellers. Cruising speed with 70% power is 251 mph, compared with 234 mph for the original SAAB-90A. Another model, the SAAB-90B, with pressurized cabin, is expected to be test-flown in the spring of 1949.

South Africa: Three four-engined Boeing S-307 Stratoliners, presumably purchased from Pan American Airways, are now registered in South Africa by Mercury Aviation Services (Pty) Ltd., of Johannesburg. MAS is a charter company reportedly interested in operating international service. The company also had three Douglas DC-3's registered in October.

Netherlands: KLM Royal Dutch Airlines has reported a profit of $309,888 for 1946, first profit the company has shown since it was founded in 1920, according to a report from Amsterdam which did not indicate whether government subsidy was involved. The company has taken delivery on its 17th and last Lockheed Constellation, 11 of which are of the L-749 type.

Siam: A plan presented by the Far East Airport & Airway Co. covering financing, construction and management of a new commercial international airport to serve Bangkok, Siam, has been accepted by Siamese authorities, according to Clark M. Kee, managing director of the company. Kee was at one time with American Airlines and later with LAMSA in Mexico.

Far East has also been awarded a $3,500,000 contract covering construction of a 7,200-ft. runway with attendant drainage system at Don Muang Airport, Bangkok's military field. Ten international airlines now serve Bangkok through Don Muang Airport.

Paris Air Terminal—The imposing gray stone structure on the left, above, is the Gare des Invalides station overlooking the Seine River in the heart of Paris. A former railroad station, it was converted two years ago into one of world's finest airline city terminals. Right view shows activity inside the station, which is designed for a capacity volume of 800 passengers per hour. Attainment of this volume may be several years off, but terminal is busy place even now. It has more than 55,000 sq. ft. of floor space.

50-Year-Old Paris Structure Ranks With World's Finest Air Terminals

By KEITH SAUNDERS

What is certainly among the largest and finest airline city terminals in the world today is a building erected in 1897—six years before the Wrights flew at Kitty Hawk. The structure in question is the Gare des Invalides, located almost in the center of Paris and used as a central terminal for air passengers entering or departing the French capital.

Built originally as a railroad station, Invalides was sold to the Municipality of Paris in 1937, with the Societe Nationale Chemin de Fer retaining one-third of the basement space for its Versailles shuttle train service. The Ministry of Public Works and Transportation was using the remaining 55,775 square feet of floor space as an exhibition hall until late 1945, when a sharp increase in air travel made obsolete the then existing Air France terminal on rue Lafayette.

Pierre Bigot, one of France's leading architects, was then engaged to transform the Invalides into a central airlines terminal. His instructions were to leave the exterior of the station virtually unaltered, so as to avoid marring the harmony of its environment, but to make such interior changes as were required to convert the former railroad station into a modern air terminal with facilities for handling large numbers of passengers with a maximum of comfort, rapidity and efficiency.

First floor of the terminal consists largely of a huge hall, two-thirds for the handling of departing passengers and one-third for arrivals. As long as a football field, this hall has a high ceiling and gets a maximum of daylight through some 16 high-arched windows.

Since a major function of the station is to eliminate congestion and delays at the two Paris airports, Orly and Le Bourget, as many formalities as possible are handled at Invalides. Upon entering the terminal from the side fronting on the River Seine, the passenger goes directly to a central check-in desk, his ticket and passport are checked and he receives a security form and a customs declaration to fill out. He is then sent to the proper one of five departure desks or "batteries," where luggage is weighed, tagged and sent to the basement to be loaded on the airport coach.

After disposing of luggage and the necessary formalities on the first floor, the passenger descends a wide stairway to the downstairs waiting room, which opens on the roofed-over loading platforms. This lounge is attractively decorated, an outstanding feature being a series of five frescoes by painter Ray Bret-Koch symbolizing the history of transportation. The chairs are comfortable, reading matter is provided, and there is a bar for the convenience of those who desire a drink while waiting. Later, when the food situation permits, a first-class restaurant will be opened also on the basement floor.

An extra touch of service for departing passengers is a flight information office on the second floor of the building, where last-minute reports are received from the operations and weather offices at the airport and are relayed to the waiting room, so that if any off-loading is necessary because of increased headwinds or for some other reason the passengers affected can be notified before boarding the bus for the airport.

For arriving passengers, the service and facilities at the Invalides station leave almost nothing to be desired. While waiting for the luggage to come up, which takes surprisingly few minutes, the passenger may avail himself of a number of services. There is an information desk, a cigar stand, a book store, telephones, toilets, a telegraph and cable desk and a currency exchange desk.

Many Services Available

If all these services will not suffice to meet his needs, there also is an S. V. P. (S'll Vous Plais) service available. This unique organization, found only in Paris, will attempt to perform almost any service you can name, whether it be buying tickets for the Opera or Follies or providing a Chinese interpreter—for a fee, of course. And there's a taxicab dispatcher to provide transportation to wherever you wish to go in the city.

The station manager, M. Gilbert Giraud, is hardworking, efficient and affable. Although he has been with Air France only a few years, he was with the French national railroad a number of years and has an extensive knowledge of transportation on the Continent.

Hard put sometimes to justify the present expense of operating the Invalides station, Giraud would welcome an upturn in traffic that would afford him the opportunity of testing his theory that the present staff, while essential to today's needs, would require little augmentation to handle the station's maximum capacity of 800 passengers per hour.

PERSONNEL

* * * *

Administrative:

John W. Newey, v.p.-finance, United Air Lines, is on six months' leave of absence from the company in connection with a special assignment representing all airlines in negotiations on joint airport matters on the Atlantic seaboard.

Curtis Barkes, director of property, is acting as assistant to the president in coordinating all activities of the finance department during Newey's absence.

Philemon R. Dickinson has been appointed assistant to the regional director for the United Kingdom and Europe for Pan American Airways. With the company since 1940, except for Marine Corps duty, Dickinson has served in the various capacities of priorities and export manager, liaison officer with the government on war contract operations, and assistant to the operations manager in the Atlantic sector.

William J. Fitzgerald has been appointed manager for all United Air Lines offices at company's new Denver operating headquarters. He joined UAL in 1941 and for past year has been superintendent of building service at Chicago headquarters.

Operations-Maintenance:

Gen. Heywood S. Hansell, Jr., has resigned as v.p.-operations for Peruvian International Airways. He joined the airline about a year ago, when Gen. Harold L. George, former commanding general of the Air Transport Command, became head of PIA. Gen. Hansell has not announced future plans.

E. P. Lott has been named manager of flight dispatch for United Air Lines, entire eastern area, with headquarters in Chicago. A veteran of 27 years in air transportation, he has for the past four years been director of UAL's design, buildings and airports department. Assisting him in carrying out around-the-clock dispatch functions are five new flight dispatch managers: **T. M. Plunkett, E. L. Gau, S. C. Hoyt, F. L. Swain** and **J. S. Hibbert.**

E. P. Lott
UAL Flight Dispatch Manager

C. E. Haneline, 16-year veteran with United Air Lines, has been named manager of ground services at Chicago, a new position consolidating certain ground activities heretofore under separate departments. Haneline joined UAL in 1931, became assistant to director of work analysis in 1941, and in 1944 became manager of work analysis.

Thomas Needham has been appointed supervisor of stations and **Stanley Pryga** has been named superintendent of communications for Wisconsin Central Airlines. Needham was with TWA since 1935, serving for the past two years as station manager at Washington, D. C. Pryga for the past six years was project technician for PAA's Latin American Division.

Robert E. Hill, formerly transportation agent for West Coast Airlines at Portland, Ore., has been named station manager in Astoria, replacing **Eugene Lacey,** resigned.

G. Ward Hobbs has been appointed manager of operations for American Airlines at Richmond, Va. In air transportation since 1929 and with AA since 1934, he had served recently as assistant to the v.p. in charges of properties.

Jess W. Brown has become director of flight operations for Southwest Airways in a reorganization of the operations department into four principal divisions. Other division heads are: **Rudy C. Couk,** director of ground operations; **Ed A. Rein, Jr.,** director of communications; **John C. Coulter,** director of maintenance.

Henry Geleski is now service manager for Robinson Aviation, Inc., in charge of aircraft maintenance, overhaul and repair at the Teterboro, N. J., base, succeeding **Gary Hilton,** who has gone with Robinson Airlines Corp. as service manager at Ithaca, N. Y.

Traffic and Sales:

Norval B. Rader, manager of passenger sales for United Air Lines since 1946, has been named assistant director of traffic and sales. He has been with company since 1930 except for wartime service as a Marine major. United also has appointed **Eugene H. George** as European director for the company, replacing **Robert M. Ruddick,** who returns to the U. S. for duties in the public relations department at Chicago. George has been in UAL traffic and sales for six years.

Charles P. Graddick, former director of cargo for United Air Lines and for the past year assistant to the president of Slick Airways, has been elected v.p.-traffic and sales. **Tom Bassett,** formerly assistant sales manager, has been promoted to general sales manager for Slick.

Edward J. Reynolds has been appointed to the newly-created post of California traffic manager for Northwest Airlines, with headquarters in San Francisco. He has been a traffic representative in New York.

P. K. Macker, formerly director of public relations for North American Aviation and more recently a public relations consultant in Los Angeles, has been appointed head of domestic public relations for TWA, under Dale Armstrong, v.p.—public relations. Macker will headquarter in New York. **James W. Simmons, Los Angeles** newspaper man and publicist, has been named manager of public relations for TWA in L.A., succeeding Clancy Dayhoff, recently resigned.

J. Antonio Zalduondo has resigned as traffic manager of Cia. Mexicana de Aviacion after 18 years with the Pan American Airways System. He is becoming general partner of Orvis Brothers & Co., New York brokerage firm.

Sam Henry, Jr., has been named U. S. advertising manager for Trans World Airlines. A veteran of 13 years in airline, radio and advertising work, he has been with TWA for two years.

James B. McCullough, formerly with Capital Airlines at Detroit and Washington, has been appointed district traffic manager for Northwest Airlines in Pittsburgh, preparatory to inauguration of service on the company's Detroit-Washington extension.

* * * *

Luke Harris on Jan. 1. took over the new duties of vice president and Burbank base manager of Lockheed Aircraft Service, Inc., succeeding **H. W. Allen,** resigned. The position of v.p.-sales, formerly held by Harris has been eliminated.

Peter F. Hurst has been elected president of Aeroquip Corporation, Jackson, Mich. Instrumental in the organization of Aeroquip in 1940, he has served previously as its executive vice president and general manager.

Norval B. Rader
UAL Traffic-Sales Veteran

Donald Douglas, Jr.

Donald Douglas, Jr. Moves Up in Firm

Added responsibilities have been given to Donald W. Douglas, Jr., with his appointment as director of contract requirements of the Douglas Aircraft Co.

The younger Douglas will continue to be director of the testing division, which he has headed since May, 1943, but as director of contract requirements he also will be associated with the sales division, directing sales development, parts sales, contract administration and the world-wide Douglas service unit.

Young Douglas started learning the ropes at the Douglas company in October, 1939, after completing an engineering course at Stanford University and the Curtiss-Wright Technical Institute. His first job was in the strength group of the engineering department. After six months, he moved along to the DC-3 project where he specialized in power plant installations. Then on the DC-4 he was assigned to the power plant group as assistant leader.

In April, 1947, his supervision was extended to the research section and experimental shop through his appointment as chief of the development section. This position brought him into a prominent role in the recent investigation of the DC-6 fires. Flying immediately to Bryce Canyon after the United Air Lines accident, Douglas was named chairman of the flight path committee and spent several gruelling days tramping through the rugged canyon area checking the sequence of dropped parts.

He also was named alternate coordinator of the test committee, supervising laboratory and flight tests of components under suspicion. Then when the American Airlines fire occurred at Gallup, N. M., Douglas flew to the scene in the first party and again was named chairman of the flight path committee.

In taking over direction of contract requirements, Douglas succeeds Karl P. Grube. Grube is to become assistant to the president of the All Steel Equipment Co. of Aurora, Ill.

Airline Commentary

By ERIC BRAMLEY

IF YOU could call up an airline on Monday morning, ask for space around the world, and leave on your trip Tuesday afternoon with space confirmed on four airlines, you'd think that was pretty good, wouldn't you? . . . That's what Donald Erskine Crum, Washington manager of British Overseas Airways Corp., thinks too . . . As a matter of fact, he's popping a few buttons off his vest because he's just accomplished it for two passengers . . . He claims it's a world record for such a reservation involving more than one airline, and we certainly aren't going to dispute the claim . . . A man called BOAC early Monday morning, said he and his wife wanted to fly around the world, with stopovers in Cairo and Tokyo, also visiting Hong Kong and Manila . . . Erskine Crum got busy on the cables and the couple left Washington for New York late the next afternoon on American Airlines . . . They were going from there to London, Cairo and Hong Kong on BOAC, Hong Kong-Manila on Cathay Pacific Airways, Manila-Shanghai-Tokyo-Chicago on Northwest Airlines and Chicago-Washington on American . . . By the time they left Washington everything was confirmed but the Cathay space, and that was waiting for them when they reached New York . . . The passengers had their passports and visas straightened out before space was requested . . . So Erskine Crum rang $3,806.30 up on the cash register and considered that he'd done a good day's work . . . We've waited longer than that for space for a puddle-jump in the U. S. . . .

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Our nomination for the outstanding Christmas card of 1947 goes to Delta Air Lines . . . In our opinion, no one else was even close . . . The card contains a wonderful airline Christmas story . . . It's too lengthy to describe here, but if there are any of them still kicking around we suggest you get one . . .

•

That good old subject of tipping at airports is so popular with a lot of people (including us) that we keep getting letters about it . . . We can't print 'em all, but we have received one that we think we'd better devote some space to . . . It comes from a friend of ours who does a lot of research in connection with aviation . . . And he's now done a little research for us on tipping . . . He says: "You have kicked somewhat in your column about airline porters, but I think I ran into the prize situation at Los Angeles Municipal Airport during the past two months when I commuted weekly between here and Oakland. You know that they have one of those fine signs in their little baggage depot outside the terminal about 'no tips' etc. That is a fine idea, of course, if it worked, which it does not. I always took the same flight south which came in at the same time as quite a few others, with the net result that many people were waiting for their baggage. I decided to try this 'no tip' situation, and here are the results:

"a. Hold up your baggage check with no tip under your thumb and it takes about 10 minutes for your bag to be taken out of the pile. The porters walk along the line of outstretched hands with eagle eyes, looking for that coin under the thumb. No coin and you wait.

"b. Baggage check with 5c—you wait about seven minutes but you get your bag before the other suckers with no nickel in sight. No thank you, though, from the porter.

"c. Baggage check with 10c—you start to get action now. About four minutes, and a curt but audible thank you.

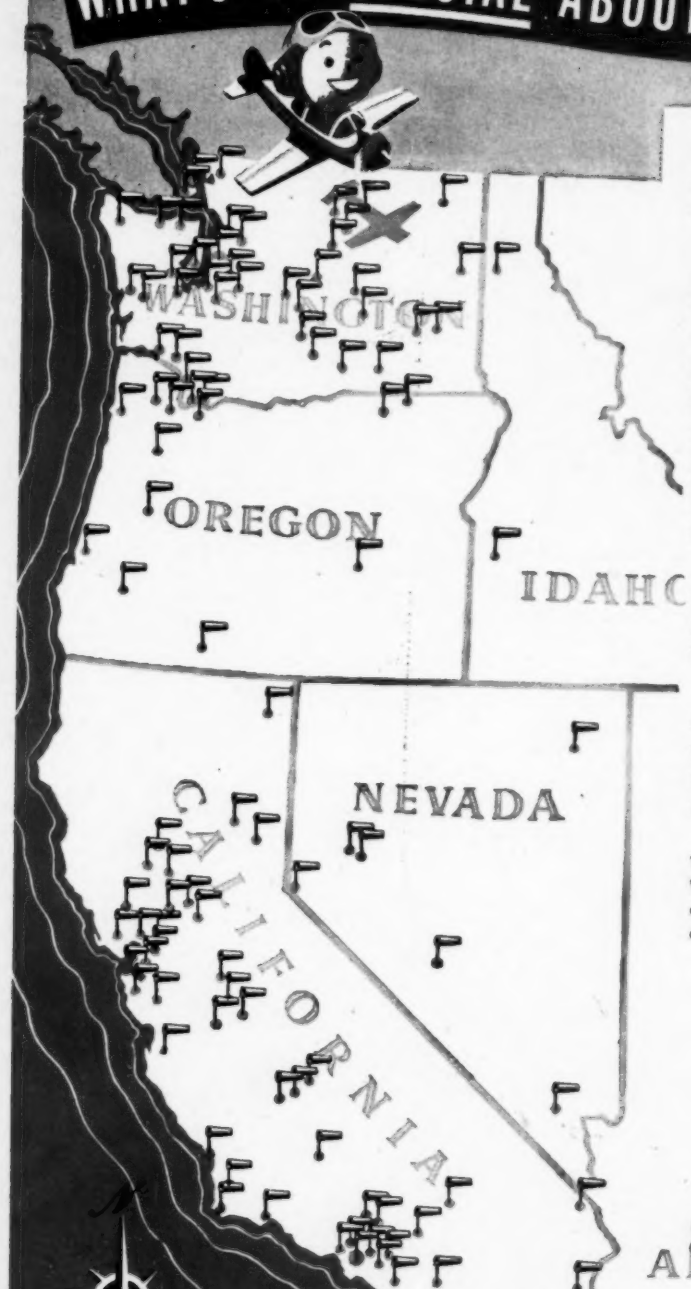
"d. Baggage check and 25c—boy, do you get service. No matter whether you show up last, and stand behind a row five deep, hold up the check with 25c and a porter comes outside, gets your check (and the quarter), hunts for your bag, drags it off the baggage cart if you can point it out, hauls it to the limousine, hopes you had a pleasant trip, doffs his cap, says thank you and goodbye, i.e., the woiks.

"Of course, I am ruining the no tip principle, but as an experiment it is interesting, and shows what a farce this 'no tip' business is. You ought to keep hammering on it" . . . If this goes on we may have to resume the battle . . . Anyone at LA Municipal have anything to say? . . .

•

Some airline pilots we have known have been quite adept at spinning tall tales ("There I was at 20,000 feet, four fans feathered, etc." and far on into the night) . . . So if some of you pilots want to have the last word in one of these story-telling sessions, we suggest you tell this one, which comes from a British pilot . . . "Speaking of weather," he said, "I was going through some fog the other day that was so thick that I had to break all the glass out of the instrument panel and fly by the Braille system" . . . That oughta stop 'em for a while. . . .

WHAT'S SO SPECIAL ABOUT THESE AIRPORTS?



Every one of these 158 Union Oil-served airports stands ready to give you a special brand of friendly service that's designed to please flying men.

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We're stocked with the finest line of aircraft fuels and lubricants you can buy—like 7600 Aviation Gasoline, Strona Aviation Greases and T5X Aero Oil.

We're loaded with information about hotel accommodations, transportation, where to eat, what to do and see in our localities. We'll be happy to give you helpful information on weather and mileage and directions to your next stop.

Taxi in and see us next time you're out cruising. We'll be ready with a cordial welcome—with the finest of service—and with an unbeatable line of Union aviation fuels, lubricants and flight accessories.

UNION OIL COMPANY
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76 UNION

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CALIFORNIA—Alturas, Antioch, Arlington, Bakersfield, Bellflower, Blythe, Burbank, Calimesa, Calistoga, Corcoran, Coachella, Colusa, Del Mar, El Cajon, El Centro, El Monte, Elsinore, Fairfield-Suisun, Fresno, Hemet, Imperial, Lancaster, Livingston, Loma Linda, Lompoc, Long Beach (3), Los Angeles, Los Banos, Merced, Montebello, Morro Bay, Napa, National City, Needles, Nice, Oakdale, Oakland, Ontario, Palmdale (2), Quincy, Ramona, Rosemead, Sacramento, Salinas, Santa Ana, San Carlos, San Diego (2), San Francisco, San Jose (2), Santa Maria, San Marcos, Stockton, Vallejo, Van Nuys, Victorville, Visalia, Williams, Willows, Woodland.

NEVADA—Fallon (2), Minden, Las Vegas, Tonopah, Wells.

OREGON—Beaverton, Burns, Eugene, Hillsboro, Klamath Falls, North Bend, Pendleton, Riddle, Salem, Troutdale, Weston.

IDAHO—Boise, Coeur d'Alene (2).

WASHINGTON—Auburn, Bellevue, Bellingham, Bremerton, Camas, Chelan (2), Cle Elum, Colville, Ellensburg, Enumclaw, Everett, Forks, Friday Harbor, Hoquiam, Kennewick, Lacrosse, Longview (2), Montesano, Omak-Malott, Orcas Island, Olympia, Port Angeles, Port Orchard, Prosser, Puyallup, Renton, Seattle (5), Sequim, Shelton, Snohomish, Spokane (3), Tacoma (3), Toppenish, Twisp, Vancouver, Washtucna, Woodland, Wenatchee, Yakima (2).

HAWAII—Honolulu.

ALASKA—Anchorage (2), Fairbanks (2), Juneau (2).

* * * *

Personnel Factors Weighed In Special Safety Report

By David Shawe

Some of the best talent in the country spent the last half of 1947 making a study of every aspect of air transport safety. The instructions handed by President Truman last June to the five-man special board of inquiry which he appointed to conduct the investigation were broad and general. The board was to examine the whole problem of air safety and recommend appropriate action.

Many readers of the year-end final report which the special board has submitted to the President may well feel that the whole subject was treated on a much broader and more general level than the President ever anticipated. At least one member of the board, Milton W. Arnold of the Air Transport Association, felt this way to such a degree that he filed his own minority statement without signing the full report. There was evidence just before filing deadline that other members balked at signing until some last-minute revisions and deletions were made.

Nevertheless, by passing over what Milton Arnold termed "aviation economic problems . . . presented . . . under a cloak of safety," there is much that is commendable and valuable in the 165-page report. There is also a lot of interesting reading material.

Good Reading for All

Rank-and-file airline employes not concerned with economics or with the regulatory aspects of safety will find that attention uncommon to such documents is paid to their work and welfare. Airline management will find a host of suggestions which are rational and workable. Government agencies and members of Congress will find a challenge in the direction of cooperation and research which could be of real benefit to the industry and the public.

Recommendations and actions which were publicized through a series of interim reports issued in the course of intensive hearings last summer, take up a considerable section of the final report. The entire first chapter is devoted to a summary covering 56 of these recommendations and actions, most of them related to such subjects as takeoff weights and runway lengths, control surface structures and fitting, gust locks, terrain clearance, emergency exits and safety equipment, and funds for all weather flying and traffic control aids.

The other five chapters are headed: (1) aircraft fire protection, (2) manufacture, maintenance, repair and inspection of aircraft, (3) internal airline organization for safety, (4) personnel problems, and (5) miscellaneous recommendations and suggestions. There is also a thick section of appendices, plus the 11-page Arnold minority report.

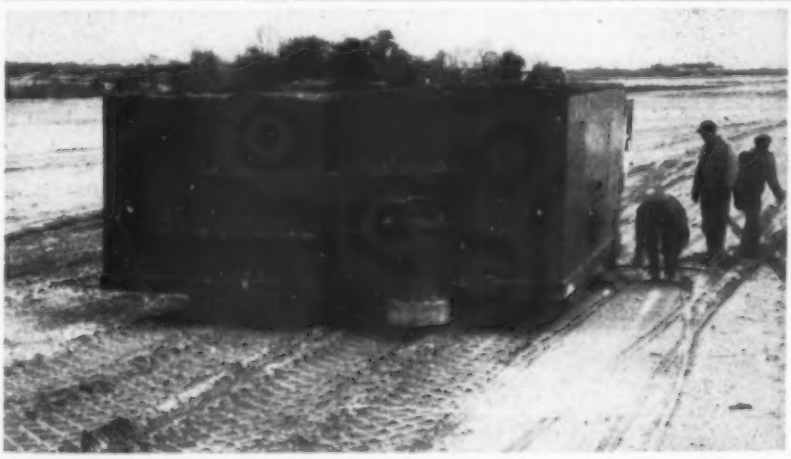
The chapter on personnel problems, said to have been written by ex-CAB chairman James M. Landis who headed the special inquiry board, has been particularly responsible for charges that the study went somewhat beyond the province of the assignment.

It is an interesting chapter, particularly to airline pilots, but it may well provoke questions from other occupational groups as to why their safety responsibilities were completely ignored in a discussion of personnel problems. With the exception of three brief closing paragraphs the entire chapter is devoted to the proficiency, pay, security, rights and morale of airline pilots, the intimation being that a pilot whose morale is low is not a safe pilot. Three full pages are devoted to discussing grievance procedures, two pages to methods of measuring proficiency, and another page each to rates of pay, seniority, and retirement and disability. None of the discussion reaches the point of actual recommendations. Capt. H. B. Cox, one of the board members, disagreed with a number of conclusions in this chapter and will file a statement of his own views particularly on suggested procedures for submitting grievances to arbitration.

The remaining three paragraphs of the chapter hasten over the plight of traffic control personnel and the probability that their low pay, strenuous work and high turnover are not conducive to safety. The report recommends that these jobs be made "generally more financially attractive" and that tower operators should be upped to a parity with higher paid control center personnel.

Other airline job classifications, particularly in maintenance and inspection, will not find themselves in the personnel chapter but receive considerable attention in other sections of the report. Particular stress is given to the relationship between inspection personnel and the maintenance department.

The authors of the report intimate that a few airlines, in the interest of meeting schedules, might be allowing maintenance or mechanical personnel to over-ride the judgment of inspectors on whether an airplane is in 100% safe flying condition. It is urged that this practice, whenever it might exist, be checked by giving inspectors the greatest possible independence from maintenance supervisory personnel. Conflicts between



New Runway Compactor—Said to be the heaviest thing on wheels, this giant 400,000 pound roller, designed by O. J. Porter & Co., Sacramento, Calif., and mounted on four one-ton Goodyear tires standing 8 feet in height, is cutting time and building costs on the new Baltimore airport. Saving from use of the roller, estimated at close to $1,500,000, will come through elimination of extra rock layers under the concrete runways and detection of soft spots in the earthen foundation before concrete is laid. Baltimore is first user of the compactor, and a second is being shipped to Argentina for use on the new Buenos Aires airport.

the two functions, the report says, should be resolved only at a very high level in the organization.

Pilot squawk sheet complaints about the conditions of incoming aircraft should receive careful and prompt attention, the study urges, indicating that there have been reports of instances when squawk sheet items did not receive adequate attention before the plane was returned to service.

The investigators commented favorably upon recent moves to place maintenance responsibility upon approved airline personnel rather than CAA inspectors. Similarly, internal rather than CAA supervision of operational matters is favored.

On the general subject of airline internal organization the inquiry board has two major suggestions to make. The first is that airlines which have not already done so establish "something akin to a safety director" to centralize all safety concerns within a single department. No recommendations are made as to the "specific echelon within the organization" where this official should be placed, but it is stressed that he should be given the staff to do a thorough job and the authority which would allow only the top level of management to over-ride him.

The second of these internal suggestions is that airlines provide for regular meetings of all personnel concerned with all aspects of safety. The suggested attendance list for these meetings includes maintenance foremen, inspectors, engineering directors, dispatchers and pilots.

Aware of Problem

The investigating group shows considerable awareness and concern over the cost of designing and proving safety features in new transport planes. However, beyond exhibiting this concern and reviewing the procedures whereby planes are certificated and inspected during manufacture, the report makes no specific recommendations except to urge that the government take a greater concern in the promotion and development of new types of transports.

In the fire protection chapter the report is quite free of any economic touch and goes right down the line on an extensive list of problems to be solved in connection with aircraft fire dangers in flight and on the ground. These problems are discussed in four phases; elimination or reduction of hazards inherent in design or materials, detection of fires, extinguishing fires, and confinement of fires to limited areas.

In urging full support for the CAA's fire test program and for the new NACA research project on aircraft fires, the report lists these problems as needing particular attention: safety fuels and non-inflammable lubricants and hydraulic fluids, safer power plant installations and electrical systems, minimized sources of combustion, operation of propeller feathering systems after damage or shut-off of power sources, fuel tank location and structure, improvement in smoke and fire detectors and in extinguishing agents, and design of structures and materials to aid in confining fires to relatively harmless areas.

In the final chapter, which sums up quite a number of items discussed during hearings but not covered in the five interim reports to the President, the lengthiest discussion is devoted to parachutes aboard airline planes. The board weighs all arguments, well known to most industry people but perhaps not to the general public, and finds that the reasons for not carrying them considerably outweigh any contentions that they should be required. The report goes so far as to suggest from a study of all accidents over a recent period of years that parachutes when improperly used or when used under probable adverse conditions might well have cost far more lives than the few which pro-parachute people contend could have been saved.

The safety record of non-scheduled and contract carriers is subjected to several pages of study in this chapter of miscellaneous suggestions. While acknowledging that a few regulations applied to certificated operators, such as route qualifications for pilots, cannot be applied fully to irregular carriers, the special board suggests that in most respects these post-war services should be required to meet the same safety standards that apply to scheduled services. The recommendation is made that existing laws be changed to give CAB and CAA greater jurisdiction over non-scheduled and charter operators.

The year-old rule that pilots must follow official weather bureau reports rather than their own judgment as to visibility and ceiling in near-minimum weather is discussed as a continuing source of industry-government contention. Without taking a position on either side, the investigators suggest that the rule be re-evaluated in the light of a year's experience.

Of limited interest but nonetheless of some significance is a 14-page appended statement, which was not felt to belong in the actual report, outlining the views of board members on the place of government in connection with air transport practices in general and safety in particular.

Membership of the special board which conducted the safety investigations and submitted this report included James M. Landis, chairman; Jerome C. Hunsaker, vice chairman; Howard M. Cox, American Airlines; T. P. Wright, CAA Administrator; and Milton W. Arnold, ATA vice president-operations and engineering.

New PAC Base—Acquisition of four large buildings and more than 400,000 sq. ft. of tie-down area on Lockheed Air Terminal enables Pacific Airmotive Corp. to announce the West Coast's largest service facility for commercial, executive and private aircraft. All aircraft services from washing to complete engine and airframe overhaul will be available. The photo shows the new service facility directly across the street from PAC's new $2,000,000 Burbank overhaul base.

Flight Dispatcher Allowed To Delegate Authority

Permission for the authorized flight dispatcher of an air carrier to delegate the authority to sign clearance forms for a particular flight of one of its own aircraft is provided in a new amendment to Part 41 of the Civil Air Regulations.

The amendment also permits the carrier to authorize qualified personnel of some other carrier to supervise the loading of an aircraft and to sign the load manifest form. Previously, the regulations required that the clearance and load manifest forms be signed by personnel of the air carrier operating the plane.

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Type 756—24 volts d-c for engines up to 750 cu. in. displacement. Weight 19 lbs. Also available for same size engines is type 397 for 12 volt systems.

Type 1651—24 volt d-c for engines up to 3500 cu. in. displacement. Weight 27.00 lbs.

Type 1550—24 volt d-c for engines up to 4360 cu. in. displacement. Weight 26.75 lbs.

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The present line of Eclipse starters, representing all the skill built up over those years of practical experience, is available for every type of conventional engine from 65 to 3000 H.P.; is adaptable to the special installation demands of rotary wing aircraft; includes models for the unique requirements of jet engines. Plan *right* from the *start*—Start with Eclipse!

Eclipse-Pioneer DIVISION OF Bendix AVIATION CORPORATION

TETERBORO, NEW JERSEY

Non-Inflammable Hydraulic Fluid Reported by Douglas

Development of a new, non-inflammable hydraulic fluid is to be announced shortly, according to testimony given by Donald W. Douglas, Jr., chief of the development section of the Douglas Aircraft Co., just before close of the DC-6 hearing in late December.

Douglas also told of two more fuel tank tests made at the Douglas company while the hearing was in progress to confirm the belief that the best method of preventing overflow fuel from entering the heater combustion air inlet would be to relocate it in the leading edge of the wing instead of changing the air vents.

The company, it was asserted, was well along with the fabrication of parts for the more than 100 modifications to be made in the DC-6, but a few engineering decisions had not been made and evaluation of some of the changes was still in progress.

Date for return of the DC-6's to service remained problematical. J. A. Herlihy, vice president of operations for United Air Lines, said his company hopes to have a few planes ready by February 15, but added that there was no assurance this could be done. Others hardly expected to see any DC-6's flying before mid-March.

TWA Pilots Receive Wage Boost Under New Contract

A new contract providing wage increases and certain other concessions for approximately 1,000 pilots and co-pilots of Trans World Airlines was signed by TWA management and the Air Line Pilots Association in late December and becomes effective Feb. 1. It will be valid through Mar. 31, 1949.

Major wage features of the new contract include: (1) Increased pilot pay of approximately 10% on Constellation equipment and approximately 5% on DC-3 equipment flying domestic service, with co-pilot pay increased approximately 6% (2) Pilots in international service will receive a guaranteed 70 hours flight pay monthly, plus overtime at $10 an hour for DC-4 equipment and $11.50 for Constellations. Previously, overseas pilots had a fixed monthly salary of $1,100.

Another feature is the creation of a new job, that of relief pilot on international flights. He will receive $70 monthly additional to his regular salary of co-pilot. The contract also resolves a number of "fringe" or borderline issues on general working conditions. The contract negotiations, handled on behalf of the airline by Robert H. Biron, Jr., v.p.-industrial relations, required only seven days.

30 HOUR CHECK

By DAVID SHAWE

THE HIGH intensity lighting agreement recently reached in Washington is something of a milestone. When it gets to Congress in the form of CAA and military budget requests it will actually be presented as an agreement and not as divergent, overlapping and costly separate requests for funds. True, it is a compromise agreement, but in the compromise lies the significance of the whole thing.

Congress has become quite sensitive about the inability of military and civil aviation agencies to reconcile their requirements and opinions. Last year's budget requests were slashed to shreds on virtually every item where the military wanted one type of equipment and the CAA another type to accomplish the same objective. The approach lighting problem, until the last minute, was headed toward a stalemate under which the military and civil agencies each would have requested funds for their own preferred systems. Probable result, no funds at all.

The problem, stated in its simplest form, was that military representatives on the joint evaluation committee insisted upon installing two parallel rows of lights, each row distinguished by color. On the other side of the problem, airline pilots, with the support of the Air Transport Association, insisted on a single row of lights extending out from the runway centerline.

When things reached a point where neither side would budge, a couple of fellows wise in the ways of Congress got the ringleaders off to one side and made it plain that budget requests for two different installation programs could expect chilly treatment. The only thing to be settled was whether it would be one row or two. Specifications for the actual lights were uniform (and can be met by several manufacturers without further development), and spacing and controllability were not a problem.

The final compromise which will be written into the budgets will not give either side exactly what it wanted, but should give everybody more than would have been forthcoming without the compromise.

There will be only one row of lights, but at civil airports that row will run straight out from the left of the runway and at military fields (even if they are used commercially) the row will be spaced out from right of the runway.

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Despite all the post-war furor about all-weather flying, everybody knows that even with the present scattered use of ILS, real all-weather operations are just something to keep talking about. The only airline which thus far has been able to really beat the weather, even in a modest sort of way, is Southwest Airways. Southwest is certificated to serve the Eureka-Arcata area in northern California, and Arcata is still serving as a proving field for GCA, ILS, high intensity lights and FIDO. One day last month Southwest made four landings at Arcata when fog would have closed the field without these aids.

Two-Directional Runway Layout Studied at Toledo

Representatives of the City of Toledo expect to place before the Regional CAA representative in Chicago soon the plans for a two-directional runway airport which, if approved, would save approximately $2,000,000 in construction costs over the triangular, three-runway design.

The plans were prepared by M. W. Cochran, Detroit airport consultant, and are based on studies of meteorological data correlated with allowable cross wind operation of modern transport aircraft. Cochran states that war experience has demonstrated a safe pilot technique for cross wind landings for tricycle landing gear planes when the allowable cross winds are within the engineering design limits of the aircraft. In addition, he states that castered landing gear experiments are now adding some new experience in cross wind landing operations.

In saving $2,000,000 on what otherwise would be an $8,000,000 outlay, Cochran points out that land areas required will be reduced from a maximum of 1,800 acres to around 1,200 acres without penalizing the servicing areas required or curtailing revenues.

Experimental Surveillance Radar Operating at N. Y.

The experimental CPS-1 airways surveillance radar installation located at Queens College, Brooklyn, went into operation in December and is being used to study and test more efficient methods of controlling aircraft approaching congested areas, such as New York.

The equipment, furnished by the Air Forces and modified by the Airborne Instruments Laboratory is being operated and maintained by the Civil Aeronautics Administration. Funds for the modification, installation and maintenance were provided by the Air Transport Association, City of New York, and CAA.

The radar set, which provides sky coverage and measurement up to 40,000 feet with a reliable range of 100 miles, will aid in studying interrelations between traffic capacities of airways, airspeed, airlane crossovers and holding delays. The CAA and the Airborne Instruments Laboratory will, for the next few month, attempt to determine methods of applying radar-gathered data to improvement of such factors.

AA, AOA Plants Consolidated

Aircraft and plant maintenance and stores activities of American Airlines and American Overseas Airlines in the U. S. were consolidated Jan. 1 Approximately 600 AOA employes at the New York base were transferred to AA in the integration. No layoff will result from the move.

Carrier-Deck Airport— Tops of three mountains were cut off in order to build this 3,200-ft. runway and the Catalina Air Terminal on the island in the Pacific. It is one of the nation's most striking airports, and a landing is the next thing to coming in on the deck of an aircraft carrier.

Mountains Clipped To Build Airport

One of the most striking airports in the United States is the Catalina Air Terminal atop Santa Catalina Island, the Pacific Ocean resort a few miles off Los Angeles.

The field, covering 30 acres, is 1,560 ft. above sea level and represents a unique construction project because it was necessary to cut off the tops of three mountains and fill in valleys to make an area large enough for the single runway.

A landing on the 3,200 ft. long, 400 ft. wide runway, from the passenger's standpoint, is the next thing to landing on deck of an aircraft carrier. From the pilot's standpoint, the field is perfect because it is absolutely free of obstructions of any type. The coach ride winding nine and a half miles down from the mountain top to the city of Avalon is an additional scenic experience for the passenger.

The Catalina airport was begun before the war, but construction was halted by the outbreak of hostilities and the paving and incidental construction work was not completed until after the war. Natural subgrade material was used for the base and the surface is asphalt paved.

Owned and operated by the Santa Catalina Island Co., the field is a private airport constructed solely for the air transportation of visitors to Santa Catalina Island and residents of Avalon. All itinerant aircraft are excluded from the field.

The administration building, erected at a cost of more than $250,000, is one of the most beautiful and unique airport structures in the world. It comprises 6,000 sq. ft. and is of early California stucco and tile. It contains a spacious lobby attractively furnished in the early California manner, operations rooms and offices and an observation tower.

Service to Catalina is conducted by United Air Lines, which has an operating agreement with the Santa Catalina Island Co. and Catalina Air Transport. The latter company holds the certificate of public convenience and necessity for the route and before the war operated a seaplane service between Los Angeles and the island. Walter L. Seiler is vice president of air transportation for the Catalina company.

MCA Fleet to Have Improved Terrain Indicators Next Month

Mid-Continent Airlines is equipping its DC-3's with an improved version of the original Howard Hughes terrain clearance indicator. Twenty-four of the instruments have been ordered, and installations are scheduled for completion by mid-February.

The improved radar unit is said to be equipped with a third clearance indicator to provide pilots with a 1,000-foot warning signal, in addition to the 2,000-foot and 500-foot indicators built into the first units.

UAL Purchases 200 Omni-Range Receivers from Collins Radio

Purchase of 200 VHF omni-directional radio range receivers from the Collins Radio Company, of Cedar Rapids, Ia., has been announced by United Air Lines.

Soon to be installed in United's entire fleet of 144 planes, the new receivers will enable pilots to use omni-directional ranges as quickly as they are installed and placed in operation by the Civil Aeronautics Administration, and also will permit them to use new radio localizers which will give them their exact heading in relation to airports where the localizers are installed.

Sperry anticipates commercial and military aviation needs

This Sperry pilot is on an important flight mission. In one of Sperry's "Flying Laboratories" engineers are testing Sperry automatic equipment under actual low weather conditions. From their accurate data come developments that *anticipate* the equipment needs of both commercial airlines and the military.

By actual Flight Research in "Flying Laboratories"

At Sperry's flight headquarters now based at MacArthur Field, Long Island, the flight research group since 1939 has operated and maintained 31 airplanes of 21 different types including commercial transports, fighters, bombers and jet fighters. By installing new equipment aboard and flying thousands of flight test hours, this group learns modern aircraft requirements and gains new ideas for developing better products.

And demonstrates new instruments in flight

After hundreds of hours of testing, each new Sperry instrument is installed in a DC-3 demonstration plane where a duplicate instrument panel gives customers an opportunity to observe the equipment in operation.

AMONG THE SPERRY EQUIPMENT proved by flight research are . . . Gyrosyn Compasses, Gyro-Horizons, Gyropilots, Automatic Approach Controls, Microwave Instrument Landing Systems, Airborne Radars, Engine Analyzers, Bombsights, and Aircraft Armament equipment.

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Carburetor Icing Cited In Michigan City Accident

CAB's official report on an accident involving an American Airlines' DC-3 which crashed near Michigan City, Indiana, Dec. 28, 1946, cites as the probable cause "accumulation of carburetor ice following the loss of power in both engines as a result of fuel starvation. The reason for fuel starvation has not been determined." Report stated that "existing evidence concerning the sequence of events immediately preceding the crash point strongly to the fact that carburetor ice impeded power recovery . . . it appears that improper use of carburetor air preheat must have been involved."

Pilot in Shannon Accident Seeks $360,000 from TWA

Suit for damages in the sum of $360,000 has been filed against Trans World Airlines by Herbert W. Tansey, pilot of the Constellation which crashed Dec. 3, 1946, in landing at Shannon, Eire. Tansey asserted he lost his right foot as a result of injuries suffered in the accident.

He charged in his complaint that the lines actuating the plane's altimeters were reversed, causing the instruments to register an altitude higher than was actually the case. TWA had been warned by Lockheed Aircraft Corp., he said, that "the static line source should be removed from its position in the nose wheel well" to avoid incorrect indications of altitude. It was charged, further, that the plane was allowed to depart on a New York-Paris flight without proper inspection of instruments.

LAS Signs Contract with SAS

Lockheed Aircraft Service, Inc., has signed a contract covering major maintenance, overhaul and modification of the Scandanavian Airlines System fleet of seven DC-4's at Lockheed's MacArthur Airport Base, Sayville, L. I. Scandanavian will continue to receive turn-around and other short services at La Guardia Field.

UAL Specialists— Two of the smallest mechanics in the airline industry are located at United Air Lines maintenance base, San Francisco, working in wing tips, gas tanks, and other tight compartments where larger co-workers cannot reach. Joe Vercillino (left), 3 ft. 11 in. tall, and James Cooper, exactly 4 ft., are shown with Curt Lawlor, 6 ft. 7½ in.

CAB Postpones Deadline For Transport Category Compliance

Civil Air Regulation Sec. 41.26 (b), which would have required that aircraft of the U. S. registry used after Dec. 31, 1947, in scheduled overseas or foreign passenger transportation be certificated in accordance with airworthiness requirements of the transport category and meet the requirements of Sec. 41.27 over each route to be flown, was amended so as to postpone the compliance date to Dec. 31, 1948.

The CAB, after a public hearing, determined that the modifications called for in the section, while desirable, are not essential from a safety standpoint and would have caused an undue burden on air carriers at this time, since they would have to withdraw aircraft from scheduled service for modifications.

Daily Plane Utilization
Domestic Airlines

	Sept.	Oct.
American		
2 eng. pass.	7:12	6:50
4 eng. pass.	7:16	7:20
Cargo	6:23	5:23
Braniff		
2 eng. pass.	7:56	7:23
4 eng. pass.	6:37	6:14
Cargo	:11	:02
Capital—PCA		
2 eng. pass.	7:58	7:34
4 eng. pass.	5:30	5:24
Cargo	3:57	2:13
Caribbean		
2 eng. pass.	2:44	2:38
C & S		
2 eng. pass.	8:24	9:13
4 eng. pass.	7:02	9:01
Colonial		
2 eng. pass.	6:15	6:18
Continental		
2 eng. pass.	8:35	8:25
Delta		
2 eng. pass.	9:22	10:05
4 eng. pass.	6:37	6:43
Cargo	2:02	3:13
Eastern		
2 eng. pass.	10:50	10:50
4 eng. pass.	7:44	7:52
Cargo	3:59	7:17
Hawaiian		
2 eng. pass.	7:25	7:17
Cargo	1:56	2:27
Inland		
2 eng. pass.	10:03	9:19
MCA		
2 eng. pass.	8:32	8:38
National		
2 eng. pass.	5:05	4:37
4 eng. pass.	7:51	7:56
Northeast		
2 eng. pass.	6:56	6:08
4 eng. pass.	6:56	4:50
Northwest		
2 eng. pass.	8:27	6:41*
4 eng. pass.	9:53	9:43
TWA		
2 eng. pass.	10:38	10:38
4 eng. pass.	7:03	7:02
Cargo	5:03	6:40
United		
2 eng. pass.	11:21	10:57
4 eng. pass.	7:55	6:53
Cargo	5:41	4:41
Western		
2 eng. pass.	8:35	8:05
4 eng. pass.	7:15	7:18

* Includes Martin 2-0-2 utilization

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. . . but there's no such thing as a successful dealer for an unsuccessful factory!

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Standard Navigational Aids Installed Along LAMSA Routes

A system of airport lighting and navigational aids, including standard revolving beacons and radio range stations, has been set up by Lineas Aereas Mexicanas, S. A. (LAMSA). Mexican subsidiary of United Air Lines, with the assistance of the Mexican Government and Aeronautical Radio de Mexico, S. A.

Points at which standard revolving beacons have been installed are: Juarez, Chihuahua, Torreon, Coahuila, La Colorada, Zacatecas, and San Luis Potosi, along the main airway from El Paso to Mexico City. Radio ranges have been installed at Torreon, Queretaro, San Luis Potosi, La Colorada, Jiminez, Chihuahua, and Nueva Casas Grandes.

All of the ranges are of low-frequency, four-course type, identical with those serving U. S. airways.

NAL, NWA Ready for ILS

National Airlines and Northwest Airlines are latest additions to the growing number of carriers equipped and certificated for use of the CAA's Instrument Landing System. Planes of both carriers have been equipped for ILS reception, and pilots have undergone intensive training in its use.

Product Literature

Dimensional information and prices on Parker "O" rings are given in a new folder, identified as Bulletin 920, available from Parker Appliance Co., 17325 Euclid Ave., Cleveland 12, O.

* * * *

An eight-page booklet on reduction of precipitation static in aircraft radio has been published by Dayton Aircraft Products, Inc., Dayton, O., manufacturers of shielded antenna fittings for commercial and military aircraft. For those technically interested, a reproduction of the U. S. Air Forces technical order covering installation of this equipment on army planes will be enclosed in the booklet. Copies of the booklet, complete with installation and maintenance instructions, available from manufacturer, 342 Xenia, Dayton, O.

* * * *

A new handy folder listing Scott Aviation Corp.'s entire line of aviation accessories for 1948 is now being distributed. The folder gives complete detail on tail wheels, engine instruments and gasoline gauges, together with 1948 prices. Copies available from Scott Aviation Corp., Lancaster, N. Y.

* * * *

A bulletin on the installation, removal and lubrication of miniature ball bearings has been issued by Landis & Gyr, Inc., 140 Fifth Ave., N. Y. C., as a supplement to its Catalog No. 6, announced last spring. Included in the eight-page bulletin, copies of which are available from the company, are a number of technical illustrations and a metric conversion table.

* * * *

New mailing pieces describing Knockometers for automotive and aviation fuel testing on single cylinder laboratory engines are now obtainable on request from Sperry Gyroscope Company, Inc., Great Neck, N. Y. The literature describes the operation and specifications of Knockometer models K-1 (aviation) and K-3 (automotive) under publications No. 15-46 and 15-47, respectively.

SAFETY SLANTS

TWO American Overseas Airlines employees, who participated in rescue activities at the UAL crash at La Guardia last May 29, have received their company's Distinguished Service Award. Oscar W. Kopnek, maintenance inspector, and Wilfred Arnold, mechanic, were so honored for conspicuous courage and valor at the risk of their own lives. The awards were made on the recommendation of C. S. Hayward, AOA safety engineer, who stated that he and other investigators were of the opinion that many of the lives saved were due to the activities of Kopnek and Arnold. They were among the first to arrive at the scene. Both helped remove passengers and assisted in fighting the fire resulting from the crash.

Kopnek and Arnold acted in accordance with the best traditions of aviation and in honoring them, the awards recognize in some small way the complete disregard of self without thought of reward that characteristizes the typical airport employee in an emergency. The assistance which aircraft mechanics and others have given to firemen and rescue crews, as well as the prompt action of fire brigades, even before the arrival of professional help, has saved many lives and prevented many disasters.

* * * *

Parents learn plenty trying to answer their children's provoking "Why?". When a serious aircraft accident occurs there is a CAB investigation to determine "Why?" and the lessons learned from these investigations help to make aviation less hazardous. But, do we really find out "Why?" for the many less serious mishaps in our operation, particularly those not involving flying?

When we have an accident or an injury, we have experienced an unexpected event and we should do our best to find out "Why?", so that we can take steps to prevent recurrence of similar untoward incidents. Investigation of one accident involving a tractor and a gasoline truck disclosed that the tractor operator had 20/200 vision in one eye. He had just not seen the other vehicle. An immediate check of the vision of other authorized vehicle operators showed half a dozen who should not be allowed to drive without glasses. In another case, a series of accidents to aircraft cleaners was found to be due to lax supervision permitting horse play. Tightening up supervision cured this epidemic.

You, too, can make curiosity pay. The next time something goes wrong, start asking questions and follow through until you have the answers.

* * * *

A New York manufacturer has designed a new method of fabricating magnesium ladders, using I beam sections for rails and ribbed, tubular rungs. Several of them have been service tested under really tough conditions by the Shell company at La Guardia. They seem to be standing up excellently. The ladders are very light and quite durable. Safety feet prevent slipping and an improved method of padding prevents damage to the aircraft.

New Equipment

Angle of Approach Indicator

A portable angle of approach indicator light weighing under 50 pounds and having a special base for temporary mounting has been announced by Westinghouse Electric Corp. It is said to be similar in performance to indicators designed for permanent mounting.

A circular spirit level is mounted on the housing for precise setting of the unit, and a quadrant arm with level on the side of the housing provides for accurate setting of the approach angle. Sights are provided for aiming the unit. The light beam is flashed 40 times a minute to make the indicator distinctive from other steady-burning colored lights. A special lens arrangement keeps a sharp division line—about five feet in a mile—between the different colored bands, insuring extreme accuracy of signal. The portable indicator requires approximately 105 watts at 115 volts and can be plugged into any convenient 115-volt, 60-cycle supply line. Further details may be obtained from Westinghouse, P. O. Box 868, Pittsburgh 30, Pa.

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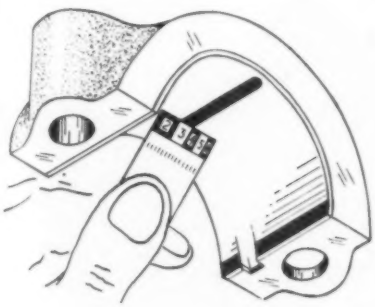
Plastigage Measurer

A new product known as Plastigage, developed by the Perfect Circle Corp., Hagerstown, Ind., is designed to



simplify the checking of main and connecting rod bearing clearances.

A piece of Plastigage is placed on the bearing shell, the bearing cap is retightened on the crankshaft and is then removed. The width (not the thickness) of the flattened Plastigage is measured with the scale on the Plastigage envelope, the reading being directly in thousandths of an inch. The product is available in two sizes: for measuring clearances of 2/1000th's to 6/1000th's, and for measuring clearances of 4/1000th's to 9/1000th's.

•

Electric Impact Nut Setter

An item of interest at the recent Machine Tool Show in Chicago was an electric torqueless impact nut setter

produced under the name of Speedo-matic.

Because the tool will not twist in operator's hand when nut becomes tightened, it affords maximum ease of operation with minimum fatigue to operator. It drives nut or bolt 1,750 r.p.m. at free speed, and at point of resistance automatically delivers 3,000 impact blows per minute. The unit is instantly reversible for removing nuts or bolts. Its capacity is up to ¾ inch bolts and nuts.

Complete information and illustrated literature may be obtained from Illinois Gage & Mfg. Corp., 4639 W. Washington Blvd., Chicago 44, Ill.

Westinghouse Developing Miniature Autopilot

A miniature autopilot sensitive to high speeds and abrupt maneuvers, and capable of maintaining sensitive control in any flight attitude, is undergoing development and test at the research laboratories of Westinghouse Electric Corp.

Engineers working on the project see applications for the 35 pound unit in guided missiles and high-speed pilotless aircraft as well as in conventional aircraft control.

According to Dr. Clinton R. Hanna of the Westinghouse research organization, the autopilot's high-speed reaction to changes in angle and to the rate of such change is obtained by using three gyros which are 'locked' to the plane and follow it in all maneuvers without any possibility of tumbling.

New Aviation Fuel for Military

A new aviation gasoline claimed to have distinct advantages over the familiar 100 octane fuel has been developed by the petroleum industry of this country and is being produced in substantial quantities for exclusive use by the military services. The fuel is 115/145 grade, as compared with the 100/130 grade of 100 octane gasoline. It increases range and speed of military aircraft by an estimated 12% to 15%.

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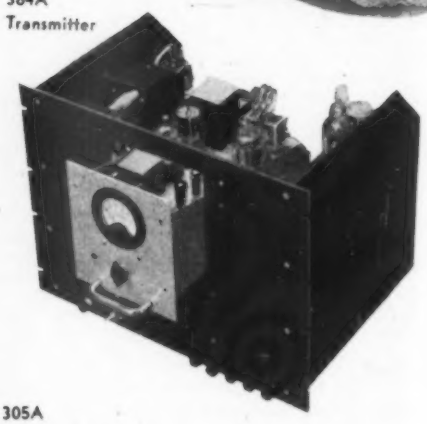

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* * * *

Increases in Dependability And Traffic Seen In 1948

Recent year-end airline statements were notably restrained and conservative, in comparison with those of previous years, when roseate predictions flowed freely, but at least two officials—Capt. Eddie Rickenbacker of Eastern Air Lines, and Croil Hunter of Northwest Airlines—could see a silver lining around the clouds for 1948.

Hunter's prediction dealt with improved service and increased passenger volume, while Rickenbacker's forecast concerned advancements in schedule dependability.

The EAL official said scheduled airlines of the country will establish new records for dependable, "on-time" transportation and will make "great advances" toward attaining the long-sought goal of all-weather flying in 1948.

The Hunter statement termed 1947 "the most eventful year in Northwest Airlines' history" and cited as major events of the year the opening of the Great Circle route to the Orient in July, introduction into service of a fleet of 10 Martin 2-0-2's in the fall, and CAB approval of a Detroit-Washington extension for NWA in December. Revenue passenger miles flown in 1947 were estimated at 554,188,791 (up 31%), air express was up 2,000,000 pounds and air mail was up 22%, he said.

Looking ahead, he predicted a substantial increase in passenger volume on the company's transcontinental route in 1948, with the volume going above 1,000,000. He foresaw "vastly improved public service" on Northwest's domestic routes this year through possible installation of automatic reservations equipment, use of the Instrument Landing System and introduction into service of the Boeing Stratocruisers.

With flying time between the U. S. and Tokyo cut to 35 hours and the company's trans-Pacific operations being conducted with even greater dependability than those in this country, Hunter envisioned an "unprecedented boom in travel to the Orient" this year.

Other airline year-end report highlights:

United—With December estimated, reported 1947 revenue passenger miles of 1,277,775,600, up 14.4%; revenue plane miles of 59,886,300, up 9.5%; air freight ton-miles of 10,172,100, up 127%; air express ton-miles of 6,787,700, up 18.5%, and air mail ton-miles of 8,528,600, down 11.4%. W. A. Patterson, president, forecast "still larger achievements in all phases in air transportation in 1948," but emphasized that improved regularity of service, with corresponding increases in safety, must be the cornerstone of continued growth.

Pan American—Enjoyed greatest volume of business in company history in 1947. With November and December traffic estimated, PAA flew 1,277,291,000 passenger miles as against 791,227,600 in 1946, and carried 31,371,240 pounds of air cargo, as against 17,029,700 pounds. Juan T. Trippe, president, anticipated another record year in 1948, predicated on the natural growth of international air travel, plus the introduction into service of 20 Stratocruisers and 20 Convair Liners.

American Overseas—Carried 63,570 passengers in 1947 for increase of 82% over the preceding year and a record in North Atlantic air service. In regularly scheduled U. S.-Europe operations, company flew a total of 174,500,000 passenger miles and 23,200,000 ton-miles, averaged more than five crossings daily, and transported 2,860,000 pounds of cargo and mail for a gain of 62%.

American Airlines—Reported carrying more than 2,750,000 passengers approximately 1,500,000,000 passengers miles, claimed to be highest totals ever recorded by a domestic airline. Air freight continued to make spectacular gains, with 16,350,000 ton-miles flown in 1947, compared with 10,500,000 in 1946. Air mail and air express remained at about an even level.

Braniff—All categories of traffic were up in 1947. Mail rose 57,206 ton-miles, express 191,571 ton-miles, and freight 246,755 ton-miles, for an overall cargo increase of 104%. Passenger miles flown totaled about 212,000,000. Hope for new year was removal of final barrier to inauguration of flights to South America.

Mid-Continent—Estimated 1947 traffic of 270,000 revenue passengers flying upward of 80 million revenue passenger miles for new company records. Also during the year boosted schedules to peak of more than 40 a day, increased fleet to 15 DC-3 aircraft, expanded ground facilities, added 869 miles to route system, and rounded out 24 million scheduled miles without passenger or crew fatality.

In the realm of predictions, the Department of Commerce's "Domestic Trade Digest" for December said "air freight traffic may be expected to expand at a more rapid rate in 1948 than any other form of transportation, passenger or freight." It said the recent air cargo rate reductions, plus the increased speed and other advantages of air shipment, would divert "a small but rapidly increasing amount of traffic from surface carriers to air carriers."

Large Windows Favored:

Passengers Tell Likes and Dislikes In NWA Martin 2-0-2 Survey

Answers on questionnaires voluntarily filled out by 1,653 recent passengers on Northwest Airlines' Martin 2-0-2 planes indicated preponderantly favorable reactions to most of the plane's features, although there were some dissenting opinions and the margin of approval varied widely with different features.

For instance, the square windows, which afford a clearer outdoor view, were approved by a vote of 1,613 to 4, while the sound-proofing met only an 832 to 648 approval.

Foot room was approved by 1,579 and disapproved by 32, while the built-in ramp was indorsed by a vote of 1,516 to 15. Other features of the new Martin transport evoked these reactions:

Built-in pillowed headrest, 1,424 favorable and 108 unfavorable; adjustable seats, 1,497 and 79; roominess of seats, 1,481 and 120; cabin color scheme, 1,554 and 30; cabin temperature, 1,208 and 298; individual seat lighting, 1,250 and 25; loudspeaker system 1,121 and 192; tricycle landing gear, 1,431 and 107; and smoothness in flight, 1,049 and 308.

The dissenting opinions, some of which apply to all airline planes and not to the Martin 2-0-2 specifically, came from a relatively small number of passengers but were quite emphatic. They were:

There should be more ample evening lunch; too much vibration of engines; better sound-proofing needed; ventilating system too noisy; names of crews should be posted on cabin doors; cabin temperature too low (in contrast to those who thought it was too high); loudspeaker system should be clearer; passengers should be given names of cities and told of points of interest; clocks should be installed in planes; seat belts could be improved; passengers should get information on causes of delays; pilots' compartments should be visible to passengers; passengers should have assigned seats; planes should have "infant seats" to fasten to regular seats; sun glare through windows should be curbed; ventilation should be turned on to remove food odors; meals should be served at mealtime; fee covering $5,000 of insurance should be added to cost of each ticket.

The questionnaires, attractively titled "Information Please," were placed in the flight kit pocket on the back of each seat.

AOA Survey Shows Majority Foreign Born Travelers

Only one out of three passengers flying to Europe via American Overseas Airlines last summer was born in North America, and 54% of them were born outside of the United States, according to an AOA survey.

R. E. S. Deichler, vice president—traffic, who announced the findings of the survey, said nearly 1,500 passengers flying from New York to Europe completed detailed questionnaires in the first installment of a continuing study to determine the "Who, Where, When, How and Why of Trans-Atlantic Air Travel."

He said 80% of the passengers had at least one foreign-born parent, and in 74% of the cases both parents were born abroad. This helped explain why 38% of the male passengers and 65% of the women who answered the questionnaire said they were flying to Europe to visit relatives, whereas only 35% of the men and 6% of the women were traveling on business.

It was the first trip to Europe for 39% of the passengers, and for 79% it was the first eastbound crossing. Only 3% traveled by air "for the experience," while 18% gave personal preference reasons, 11% said they had been unable to procure steamship accommodations, and 8% of the passengers who had previously traveled to Europe by air had never traveled by any other means.

More than half of the passengers said they had planned their trips two months or more in advance.

New American Ticket System Simplifies Work of Agents

A new ticketing system inaugurated this month by American Airlines is expected to simplify the work of ticket agents, auditors and ramp agents, and to make tickets more understandable to passengers.

The new procedure embodies three principal features: (1) A common stock of tickets in each office, rather than individual stock for ticket-issuing agents. (2) Pre-printed single-destination tickets to replace "strip" tickets containing multiple destinations. (3) Use of pre-printed tickets for travel in either direction between terminals.

A ticket sales report is made out for an entire office each day by one man, saving an estimated 30 minutes a day for agents who formerly had to compile separate reports. One auditing suffices for an entire office, also, instead of audits of each agent's individual stock. The one-coupon ticket is easier to issue and lift, and the same form can be stocked at two offices, thus requiring less frequent re-issuance.

Rates and Tariffs:

PAA-UAL Sign Interline Pact for Honolulu Traffic

Travelers from intermediate points between Los Angeles and San Francisco, and from San Francisco north to Medford, Oregon, may now travel to Honolulu for the same fare charged residents of San Francisco and Los Angeles, under an interline agreement signed between Pan American Airways and United Air Lines.

The fare is $150 one way from any of the above points. Passengers emplaning between L. A. and S. F. may go via either of these two points, while those embarking north of San Francisco will travel via that point.

TWA on Jan. 1 inaugurated sharp reductions in cargo rates on selected commodities between heaviest cargo traffic generating centers and principal destinations of shipments. The reductions in some cases amount to as much as 45%. For example, a 100-pound shipment of fresh vegetables from Los Angeles to New York, formerly costing $25, now carries a tariff of $13.52.

Pan American Airways has instituted reduced round-trip excursion fares connecting Colombian cities of Bogota, Cali and Medellin with Panama. Round-trip fares between Bogota and Panama were lowered from $108 to $90, between Cali and Panama from $102.60 to $80, and between Medellin and Panama from $77.40 to $60.

Delta Air Lines has put into effect new air cargo rates reducing by 40% the tariffs on specific commodities moving northbound from 15 Delta originating points. Reduction applies only to shipments of 100 pounds or over.

Pan American-Grace and Pan American Airways jointly have made effective substantial reductions in air cargo rates between New Orleans, Los Angeles, Houston, Brownsville, Corpus Christi and Mexico City and such South American trade centers as Buenos Aires, Lima and Santiago. Savings to shippers amount to more than 30% on lots over 100 pounds.

Pan American in late December announced further reductions in rates for transportation to Europe of gift food and clothing parcels in shipments of 100 pounds or over, with no individual package to weigh more than 22 pounds. Reductions run as much as 35% between New York and London.

Non-Scheduled Skycruises Dropped by Resort Airlines

Resort Airlines, Inc., has announced its usual winter series of Tropiclands and Latinlands Skycruises will not be run this season in view of the Civil Aeronautics Board's refusal to issue a temporary certificate for operation of these cruises on a scheduled basis. Pending action on its application for certification as a scheduled carrier, the company is dropping all non-scheduled common carrier services, but will continue in contract and charter operations.

U. S. Domestic Airline Revenues-Expenses for October

AIRLINES	TOTAL OPERATING REVENUES	PASSENGER REVENUES	MAIL REVENUES	EXPRESS REVENUES	FREIGHT REVENUES	EXCESS BAGGAGE REVENUES	NON-SCHEDULED TRANSPORT REV.	TOTAL OPERATING EXPENSES	AIRCRAFT OPERATING EXPENSES	GROUND & INDIRECT EXPENSES	NET OPERATING INCOME
All American	$ 74,410	$	$ 73,299	$ 1,057	$	$	$	$ 98,064	$ 58,288	$ 39,776	$ -23,653
American	8,171,322	7,156,818	289,595	181,152	411,512	101,149	26,884	7,605,872	3,388,279	4,217,593	565,450
Braniff	1,087,381	957,448	42,712	29,517	16,885	8,979	28,282	1,060,971	520,701	540,270	26,410
Capital-PCA	1,904,856	1,391,491	260,461	52,903	76,125	8,011	74,387	1,768,396	828,516	939,880	136,460
Caribbean	36,818	29,295	5,505	. . . .	1,120	239	440	48,156	20,638	27,518	-11,339
C & S	701,767	549,035	79,383	21,167	15,460	5,895	30,546	690,890	264,881	426,009	10,876
Colonial	285,444	228,479	52,506	2,918	2,188	1,849	1,567	287,710	132,337	155,373	-2,265
Continental	350,105	280,312	53,308	2,764	4,322	2,922	1,104	365,337	157,644	207,693	-15,232
Delta	972,663	859,619	38,918	28,868	30,593	9,863	3,279	1,082,883	503,986	578,897	-110,220
Eastern	4,446,931	4,070,167	131,119	105,589	64,977	66,332	5,774	4,630,514	2,501,264	2,129,250	-183,583
Hawaiian	272,672	225,189	1,777	10,694	24,896	6,966	3,015	259,723	94,864	164,859	12,949
Inland	183,032	130,225	49,079	1,471	630	1,176	. . . .	178,624	83,127	95,498	4,407
MCA	562,849	462,985	81,151	5,787	7,360	3,241	1,549	514,385	227,330	287,055	48,464
National	811,846	738,834	22,671	11,165	14,485	18,747	. . . .	950,660	478,885	471,775	-138,814
Northeast	372,730	293,713	64,519	3,715	6,260	1,296	. . . .	449,891	201,287	248,604	-77,161
Northwest	1,842,661	1,613,078	100,978	34,603	70,807	13,757	4,460	1,766,041	796,134	969,907	76,620
TWA	4,739,394	3,988,350	276,090	170,123	172,138	52,927	50,679	4,662,261	2,137,943	2,524,318	77,133
United	7,015,998	6,023,455	318,551	225,205	309,395	66,379	21,370	6,546,828	2,938,318	3,608,510	469,170
Western	602,064	475,689	60,850	9,483	11,224	3,502	2,111	777,566	333,356	444,210	-175,502
TOTALS	34,434,943	29,470,782	2,002,472	898,181	1,240,377	373,230	253,447	33,744,773	15,667,778	18,076,995	690,170
				Report for Quarter Ending September 30, 1947							
Colonial	977,277	777,810	176,853	12,696	. . . .	7,121	2,510	995,373	468,767	526,607	-18,096

NOTE: Above figures are taken from monthly reports filed by the airlines with the CAB. The data are tentative and subject to later change.

U. S. Feederline Traffic for October

AIRLINES	REVENUE PASSENGERS	REVENUE PASSENGER MILES	AVAILABLE SEAT MILES	PASSENGER LOAD FACTOR	MAIL TON-MILES	EXPRESS TON-MILES	FREIGHT TON-MILES	TOTAL TON-MILES REV. TRAFFIC	AVAILABLE TON-MILES FLOWN	% AVAILABLE TON-MILES USED	REVENUE PLANE-MILES	SCHEDULED MILES	% SCHEDULED MILES COMPLETED
Challenger	1,650	403,000	1,801,000	22.4%	2,141	1,237	1,810	45,674	226,411	20.2%	85,762	97,030	88.3%
Empire	1,039	251,000	762,000	32.9%	1,251	523	. . . .	22,545	62,133	36.3%	77,388	79,373	95.9%
Florida	855	104,000	558,000	18.6%	456	223	. . . .	9,355	61,036	15.3%	69,756	70,060	99.6%
Monarch	2,504	528,000	2,338,000	22.6%	1,620	1,029	6,364	61,995	205,765	30.1%	130,547	151,138	86.0%
Pioneer	7,513	1,918,000	5,371,000	35.7%	3,717	1,727	1,269	175,278	457,431	38.3%	223,476	231,384	96.1%
Southwest	7,691	1,389,000	3,854,000	36.0%	2,785	3,147	2,184	147,516	375,960	39.2%	187,424	221,788	84.5%
Trans-Texas*	402	75,000	1,198,000	6.2%	259	7	. . . .	6,676	91,513	7.3%	57,062	60,144	94.9%
West Coast	4,520	533,000	2,201,000	24.2%	781	583	. . . .	49,100	223,188	22.0%	106,516	118,916	89.6%
TOTALS	26,174	5,201,000	18,083,000	28.8%	13,010	8,476	11,627	518,139	1,703,437	30.4%	937,931	1,029,833	90.9%
					Helicopter Mail Service -- October, 1947								
Los Angeles**	. . . .	. . . .	. . . .	. . .	646	. . . .	. . . .	646	3,670	17.6%	670	11,322	87.0%

* Began operations October 11, 1947
** Began operations October 1, 1947

U. S. Feederline Revenues-Expenses for Quarter Ending Sept. 30

AIRLINES	TOTAL OPERATING REVENUES	PASSENGER REVENUES	MAIL REVENUES	EXPRESS REVENUES	FREIGHT REVENUES	EXCESS BAGGAGE REVENUES	NON-SCHEDULED TRANSPORT REV.	TOTAL OPERATING EXPENSES	AIRCRAFT OPERATING EXPENSES	GROUND & INDIRECT EXPENSES	NET OPERATING INCOME
Challenger	$ 194,370	$ 73,333	$ 113,748	$ 1,536	$ 256	$ 279	$ . . .	$ 226,251	$ 105,931	$ 120,320	$ -31,880
Empire	169,958	46,584	120,850	403	. . . .	291	322	216,392	127,231	89,161	-46,434
Florida	200,158	12,138	184,088	245	. . . .	47	792	139,336	71,197	68,139	60,822
Monarch	232,310	91,321	134,209	1,330	4,355	466	. . .	342,445	174,374	168,071	-110,136
Pioneer	547,074	238,933	288,715	1,665	456	1,240	5,492	505,030	257,772	247,257	42,044
Southwest	426,399	268,231	145,117	4,750	1,258	1,168	5,199	598,102	277,910	320,191	-171,702
West Coast	358,833	133,690	192,853**	900	. . . .	401	. . . .	234,067	101,744	132,323	124,766
TOTALS	2,129,102	864,230	1,179,580	10,829	6,325	3,892	11,805	2,261,623	1,116,159	1,145,462	-132,520

* Under CAB filing procedures, the airlines file a cumulative quarterly financial report for July-September in place of a separate statement for the month of September. Traffic data, however, are reported separately for each month.

** Includes $62,642 retroactive mail pay applicable to period 12/5/46 to 6/30/47 as per CAB Order #E-901, dated October 20, 1947.

* * * *

Survey Shows Rise in Airline Costs per Plane Mile in '47

Revenue plane-mile expenses of the major domestic airlines increased nearly twice as much as plane-mile revenues during the first three quarters of 1947, as compared with the first nine months of 1946, according to reports filed with the Civil Aeronautics Board.

The survey showed that the carriers' operating costs per revenue plane-mile through September 30, 1947, averaged 114.4c, as compared with expenses averaging 101.6c per plane-mile for the same nine months of 1946. The average increase amounted to 12.8c per plane-mile.

Revenues were up last year, too, but by about one-half as much as expenses. The plane-mile revenues of the domestic carriers averaged 108.5c for 1947's first nine months, as against 102.0c in the same period the year before, for an average increase of 6.5c per plane-mile.

Another comparison based on the same figures shows graphically how the financial condition of the domestic airlines in 1947 suffered by comparison with the previous year. In 1946, nine-month revenues averaged 102.0c per plane-mile, whereas plane-mile expenses averaged 101.6c, leaving the carriers with a slight plane-mile profit. The same nine months of 1947, on the other hand, saw revenues of the airlines rise to 108.5c per plane-mile, while expenses soared to 114.4c per plane-mile.

	Operating Expense Per Plane Mile		Operating Revenue Per Plane Mile	
	January-September			
Carrier	1946 (cents)	1947	1946 (cents)	1947
AAL	101.9	135.2	104.3	132.6
Enf.	91.6	101.1	90.5	98.9
PCA	114.8	129.0	102.7	112.8
Car.-Atl.	116.2	143.4	91.5	123.4
C & S	106.7	125.6	89.4	112.7
Colonial	108.2	117.2	94.0	94.0
CAL	81.7	83.1	83.6	75.0
Delta	92.8	99.1	94.9	96.2
Eastern	78.4	103.7	99.3	112.2
Hawaiian	119.9	117.7	153.5	127.1
Inland	85.8	88.7	87.7	96.8
MCA	84.6	80.5	95.8	84.6
NAL	87.7	110.9	100.2	104.1
NEA	124.9	135.0	121.2	106.1
NWA	97.5	122.7	106.3	116.7
TWA	116.5	108.3	99.5	99.6
United	94.2	110.9	102.6	113.5
WAL	124.7	147.5	118.1	147.5
Average	101.6	114.4	102.0	108.5

Increases Vary Widely

Fifteen of the 18 carriers reported increases in expenses ranging from 1.3c per plane-mile for Continental Air Lines to 33.2c per plane-mile for American Airlines. The three showing decreases were: Hawaiian, which dropped from 119.9c per plane-mile the first nine months of 1946 to 117.7 in same period last year; Mid-Continent, which cut down from 84.6c to 80.5c per plane-mile, and TWA, which decreased from 116.5c per plane-mile to 108.3c.

Nearly all airlines showed increases in revenues for the first three quarters of last year, as compared with the same period in 1946, but the increases amounted to only a few cents per plane-mile for many of them. The four whose plane-mile revenues through September of last year averaged less than those for the same nine months of 1946 were: Hawaiian, Continental, Mid-Continent, and Northeast.

The increased revenues of the majority of carriers reflected the 10% passenger fare increase of last spring and the substantial increases in express and freight revenues in 1947, as against 1946. The increased expenses reflected a general rise in labor and material costs, plus the expense, for some carriers, of putting new equipment into service.

Robinson Airlines Holds Costs To 52c per Plane Mile

Operating Douglas DC-3's (60% of schedules) and twin-engined Beechcraft (40%), Robinson Airlines during late 1947 got its total costs down to an average of 52c per revenue plane mile, a figure its president, C. S. Robinson, points out is approximately one-half that of the certificated feeder and trunk lines.

Currently non-certificated but awaiting a CAB decision on its application, Robinson has been operating an intrastate scheduled air service between New York City and the upstate points of Binghamton, Ithaca, Albany and Buffalo for two years and nine months.

Averaging 14 scheduled daily, Robinson carried 2,517 passengers in October, ranking ahead of most of the certificated feeder airlines. Revenue passenger miles for the month were 431,737, against available seat miles of 788,500, for a load factor of 54.8%. Scheduled miles completed were 92.9%.

MCA Reports $81,000 Net Profit for 11 Months

A net profit after taxes of $81,671 for the first 11 months of last year was reported by Mid-Continent Airlines.

The company's net loss for November was $33,589 after a credit adjustment of $23,342 for income taxes, as compared to a loss of $8,506 after taxes in November, 1946. Operating revenues for November were $409,986, up 6% from the same month of 1946, but operating expenses were 14% greater.

Convair Reports Net Loss Of $6.2 Million for 9 Months

Operations of Consolidated Vultee Aircraft Corp. for the nine-month period ended Aug. 31, 1947, resulted in a net loss of $6,264,773 after an estimated tax carryback of $18,030,211, including approximately $6 millions tax refund resulting from renegotiation and other tax adjustments, the company's directors were told at their recent meeting.

Included in the loss was a write-down of $14,400,000 on work-in-process inventories applicable to the Convair Liner project, so as to reflect inventories at realizable market value.

UAL Transfers $2 Million From Depreciation to Surplus

United Air Lines has transferred $2,000,000 from a depreciation reserve to surplus in view of longer operating life now expected of the company's four-engined Douglas C-54 planes. United originally planned an operating life for the DC-4's of two years which has now been extended due to a delay in the acquisition of new planes.

Financial Briefs

Boeing Airplane Co. and its subsidiary, Boeing Aircraft Co., reported a consolidated net loss of $356,528 for the first nine months of 1947. Receipts totaled $15,207,145, expenses $15,540,174.

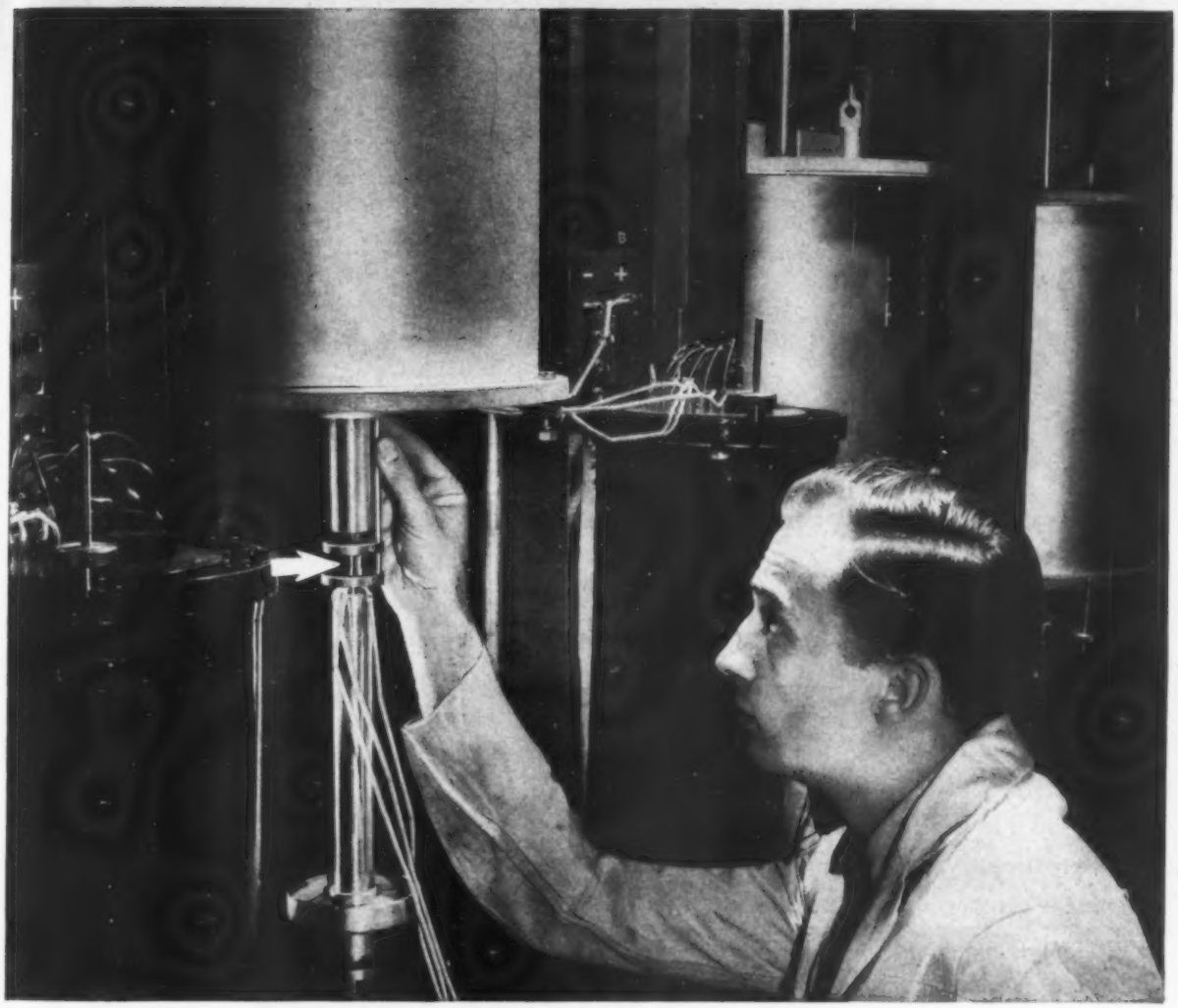
United Aircraft Corp. reported net income of $6,083,205, or $1.92 a common share, for first nine months 1947, against $4,670,229, or $1.39 a share, for same period, 1946.

North American Aviation's preliminary report for fiscal year ended Sept. 30 showed net loss of $28,259, after applying tax carry-back credits of $11,700,000. Income totaled $20,508,991, expenses at $32,237,250.

Slick Airways reported an October net profit of $32,750, compared with $13,910 net for September, first profitable month in the company's history.

Helicopter Air Transport, Inc.'s petition for reorganization and relief under the National Bankruptcy Act has been approved by the U. S. District Court for the District of New Jersey.

Kansas City voters have approved two airport bond issues totaling $10,500,000.



THE ALLOY THAT CREEPS BEFORE IT FLIES

▸ This metal alloy specimen is providing information for designers of aircraft engines. It is undergoing a high temperature "creep" test in the Wright Aeronautical Corporation metallurgical laboratory. For months at a time it will be stretched under a tension of thousands of pounds per square inch — at temperatures that will keep it white hot. The test machine can measure as little as 5/100,000 of an inch stretch and control the heat within a tolerance of one degree Fahrenheit.

▸ The "creep" test is conducted on hundreds of specimens to determine how much each will stretch when subjected to extreme loads and temperatures for thousands of hours. It preproduces conditions that the material will encounter in actual operation.

▸ Another example of the resourcefulness with which Wright Engineers pioneer developments in aircraft turbine and reciprocating engines.

POWER FOR AIR PROGRESS

WRIGHT

Aeronautical Corporation • Wood-Ridge, New Jersey

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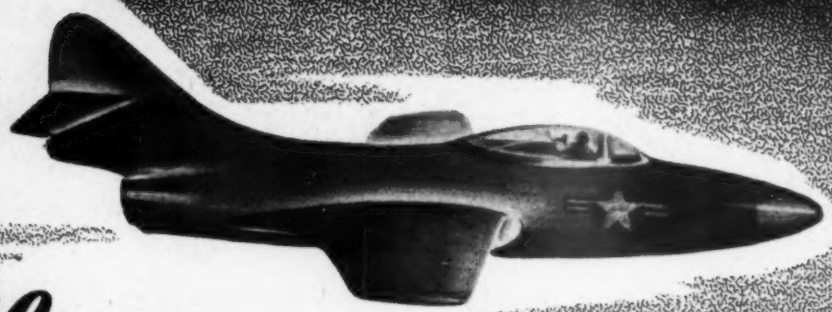
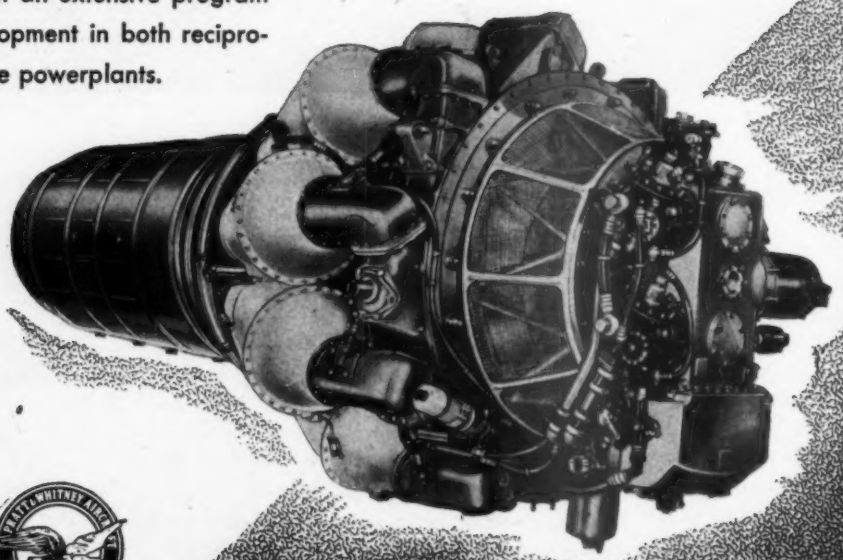


Nene

NEW MEMBER OF THE PRATT & WHITNEY FAMILY

The Nene engine, first aircraft powerplant in the turbo-jet field to bear the Pratt & Whitney seal, will power a substantial part of the Navy's new fleet of Grumman F9F Panthers — latest type of shipboard fighter.

Tooling up for production of the Nene is progressing rapidly. At the same time, Pratt & Whitney is carrying on an extensive program of research and development in both reciprocating and turbine-type powerplants.



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Advertisers In This Issue

Classified Advertising

The rates for advertising in this section are as follows: "Help Wanted," "Positions Wanted," "Aircraft Wanted or For Sale," and all other classifications $1.00 a line, minimum charge $4.00. Estimate bold face heads 30 letters and spaces per line; light body face 40 per line; box numbers add two lines. Terms, cash with order. Forms close 20 days preceding publication date. Rates for display advertisements upon request. Address all correspondence to Classified Advertising Department, AMERICAN AVIATION PUBLICATIONS, 1317 F Street N. W., Washington 4, D. C.

EQUIPMENT FOR SALE

Aircraft instruments, all types. Parts, hydraulic valves, pumps, generators, starters, toggle switches, circuit breakers, Stewart-Warner heaters. American Surplus Co., 4274 So. Broadway, Los Angeles, Calif. Phone: Adams 3-4209.

AIRCRAFT FOR SALE

CESSNA 1946-Model 140 deluxe, completely equipped with instruments and 2-way radio. 160 hrs. Priced for quick sale. Walter O'Connor, Agawam land and seaplane base, Agawam, Mass.

POSITION WANTED

Wanted Operations position. Male 28 yrs., college grad. Experience as airport mgr., navigator, flight dispatcher. Foreign or domestic. Box No. 599, American Aviation, 1317 F St., N. W., Washington 4, D. C.

HELP WANTED

WANTED—AIRCRAFT RADIO SALESMAN. Must be experienced in aircraft radio sales with broad contacts throughout the aircraft industry. Must be able to organize and set up merchandising program and preparation of literature. Must be an experienced Jr. Grade aircraft radio engineer. Excellent opportunity for future with a leading manufacturer. Location Middle West. Forward complete resume and salary requirements with salary history with first reply. All replies will be kept confidential. Apply Box No. 601, American Aviation, 1317 F St., N. W., Washington 4, D. C.

Index Available on German Aeronautical Research Papers

The Office of Technical Services, Department of Commerce has on sale an index of 831 of the most significant aeronautical research papers of German scientists published between 1939 and 1944.

Prepared by OTS investigators in Germany, the index is based on the yearbooks published by the two major German aeronautical research organizations. Besides general aeronautical subjects, the papers cover related research in electronics, communications, photography, optics, mechanics, chemistry, meteorology and medicine.

Mimeographed copies of the 106-page index (PB-78255 Report Index on German aeronautical research documents) sell for $2.75. Orders should be addressed to the Office of Technical Services, Department of Commerce, Washington 25 D. C. and be accompanied by a check or money order payable to the Treasurer of the United States.

Harvard Aircraft Study Issued

A historical analysis and review of "Problems of Accelerating Aircraft Production During World War II" has been published by the Division of Research, Graduate School of Business Administration, Harvard University. The report was sent to the Air Force almost two years ago but was only recently cleared for release to other interested parties. It numbers 112 pages, including charts and supporting tabular data, and is available for $1.50 per copy.

Stratocruiser Service Guide

Boeing Aircraft has started a new monthly publication, "Boeing Service Guide," featuring operation and maintenance information on the new double-deck Stratocruiser. It is the commercial counterpart to company's restricted monthly bulletin on military aircraft, and has a circulation limited to airlines operating Boeing planes and to associated industries immediately concerned. Both publications are prepared by the Engineering Division's service department.

WINGS OF YESTERDAY

25 Years Ago

According to the Aeronautical Chamber of Commerce, probably the most conspicuous deficiency in facilities for the proper growth and development of air transport (outside aerial law) was found in the lack of a comprehensive nationwide system of organized airports, charted and classified according to route and construction.

• • • •

By arrangement with the River Plate Aviation Co., the Argentine Post Office established a daily air mail service between Buenos Aires and Montevideo, using three seaplanes. Passengers as well as mail were carried.

10 Years Ago

(In AMERICAN AVIATION*)*

John K. Northrop, v. p. of Douglas Aircraft Co., and general manager of the Northrop division, resigned both positions. (Jan. 15, 1938)

• • • •

Senator Pat McCarran redrafted his bill so that it would provide control of air transportation by a separate semi-judicial body, rather than for control by the Interstate Commerce Commission (Jan. 15, 1938)

• • • •

According to a report made public Jan. 3, 1938 by the Postmaster General, air mail postal revenues for the fiscal year ending June 30, 1937 came within a half million dollars of equaling the amounts paid by the Post Office Dept. to the air mail contractors. The report showed a big increase in postal revenues from air mail, rising from $6,000,000 in 1935 to $12,439,579 for the year ending June 30, 1937. (Jan. 15, 1938)

LETTERS

No 'Kid with Matches'

To the Editor:

Regarding your editorial in the *American Aviation* issue dated Dec. 15, 1947.

I heartily disagree with what you imply and I know you do not know whereof you write. For these reasons I think it highly unbefitting your profession and usual manner, to write such articles as the last two you have published regarding Dave Behncke and the ALPA. If many of your published editorials are as erroneous in fact as these, the aviation industry is indeed suffering from misrepresentation and bad reporting through *American Aviation*.

Dave Behncke is not above reproach, neither are any of us, but *he* is not the "kid with the matches" in the current UAL-ALPA controversy; I suggest you gather more data before blowing so widely.

W. D. GRIFFITH,
Captain, UAL.

More on Behncke

To the Editor:

I have just read a Letter to the Editor by a R. L. Kruse, ALPA member, who professes indignity over the well-deserved criticism of Mr. Behncke by Mr. Parrish's editorial.

It is my opinion, and also of most ex-Army and Navy pilots of the past war, and all newcomers in this city who are flying with the airlines here, that anyone who has passed the sixth grade would side with Parrish's editorial.

I happened to be with the army of Occupation in Germany at the time of the TWA strike and know how our prestige, and particularly that of our airlines, dropped . . . Here we were trying to preach "Americanism" abroad, and attempting to gain first place in international air travel, and a small minority pulled the wheels from under us. I have been an Army pilot for seven years and feel that Behncke has done more to hurt the prestige of piloting than anyone alive.

After receiving a discharge, I find that it is the opinion of all the men who gave their services to their country during the war, that the power behind the union and the potent factor of same is the same small minority who were making the pay of Generals during the war, and flying over territory which was extremely neutral. It is this same minority who still are in the driver's seat. I agree that a pilot deserves substantial pay for his experience and work; but I feel that no pilot, that is, no pilot who received his training free from the government (and this group is the backbone of the airlines) has a right to strike against his company . . . it's the small group, the bunch who "just couldn't secure a release from the airlines during the war," or, because of the scarcity of good material, were hired as co-pilots after war was declared, who are backing Mr. Behncke to the hilt; and causing the airlines the trouble they are experiencing.

My advice is, let's form an AFA (Army Air Force Association) here to see that the ALPA doesn't get ideas again.

I wish to leave my name out for obvious reasons, but if this article cannot be printed without it, then stick it in.

(NAME WITHHELD BY REQUEST).

On Editorial Freedom

To the Editor:

Please delete my name from your mailing lists. As an airline pilot, and an accredited member of the Air Line Pilots Association, I can no longer permit the entrance into my home of your Mr. Wayne Parrish's vicious and slanderous articles. We the pilots, have tried to act like gentlemen in our disputes, but apparently Mr. Parrish was brought up in the modern school that excuses any and all means of attaining an end, just so long as the end is reached.

I naturally do not deny Mr. Parrish his right to say and think whatever he pleases of me and my fellow pilots, but I most certainly do not intend to have any part in actively supporting him or the organization that in turn employs and supports him. Editorial freedom is one of the most cherished heritages, please don't continue to abuse it by allowing the publication of obviously slanted articles.

Please therefore, consider this the termination of my subscription. It is unfortunate that an otherwise intelligent and informative publication has to be spoiled for those of us who appreciate fair play.

EUGENE LORE
Beechurst, Long Island

BOOKS

JANE'S ALL THE WORLD'S AIRCRAFT, 1947. Compiled and edited by Leonard Bridgman; London edition printed by Sampson Low, Marston & Co., Ltd., and issued August, 1947; American edition printed by The Macmillan Company, 60 Fifth Ave., New York, and published December 16, 1947. 446 pp. American edition $20.

This is the 35th year for this standard international reference work on aircraft and aircraft engines. The current edition follows the historical pattern and is divided into four major parts: service aviation (25 pages), civil aviation (41 pages); airplanes (297 pages) and engines (84 pages).

The entire book has been completely revised and re-set, and 548 of the 630 illustrations are said to be new. The civil aviation section has been reduced in size and is now simply a directory of civil aviation organizations, scheduled airlines, flying clubs, etc. No statistics are given for either air transport or manufacturing. The airplane and engine sections give performance characteristics with photographs and three-view drawings. A continuing handicap to the user of Jane's is the lack of a cross-reference index to facilitate the identification of individual air craft and engines by popular name and model name and by name of the manufacturing company.

AUSTRALIAN AVIATION YEARBOOK 1947-48, edited by Stanley Brogden. The Hawthorne Press, Melbourne, Australia. 224 pp. 10/6.

This is quite a complete and useful reference book on Australian aviation. One hopes for more statistics, but from the standpoint of compilations of companies and organizations and their histories, the job is quite satisfactory. The Government and the Royal Australian Air Force are given considerable attention. Each airline is given separate treatment. Statistics for both commercial and civil aviation, i. e., more than included in the current issue, would greatly increase the usefulness of future editions.

PERFORMANCE EFFICIENCIES OF AIRLINE OPERATION, by R. Dixon Speas. Published by Aero House, PO Box 631, Great Neck, N. Y. 198 pp. $2.50.

Dixon Speas, assistant to the vice president-engineering of American Airlines, has written this book primarily for use as a text (it is being used at New York University and Purdue), but it should prove of real interest to anyone connected with air transportation.

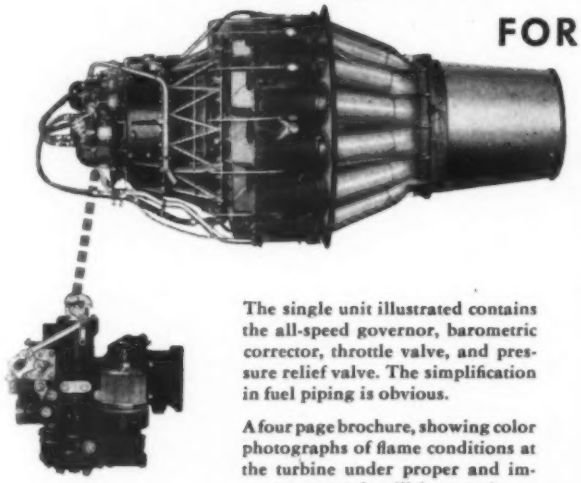
In it he covers such subjects as airline organization, fundamentals of flight and performance, aircraft and engines, airports and airways, cargo loading, passenger service, operating costs and revenues, scheduling, and many others. There are numerous pictures, graphs and charts.

The merits of the book are well described in a foreword by E. I. Whyatt, executive vice president of Northwest Airlines. "The student of air transportation, or for that matter, the student of any aspecct of any form of transportation, will find here a valuable statement of policies and practices, of requirements and results, all presented in a clear and concise manner . . . It opens to view the complexity and inter-relation of the many aspects of airline operation," he states.

"An Aeronautica of Air Express," 18-page booklet on the evolution of air express service, is available free from the Air Express Division, Railway Express Agency, 230 Park Avenue, New York 17, N. Y. The booklet is an interesting collector's item, containing reproductions of prints and drawings showing early conceptions of air travel and cargo-by-air.

with Speed-Density Fuel Control

FOR JET ENGINES



The single unit illustrated contains the all-speed governor, barometric corrector, throttle valve, and pressure relief valve. The simplification in fuel piping is obvious.

A four page brochure, showing color photographs of flame conditions at the turbine under proper and improper control, will be sent in response to properly qualified inquiry.

In the same way Bendix* research has so often made aviation history—including the introduction of the Stromberg Injection carburetor for piston engines—the new Bendix Speed-Density Fuel Control revolutionizes the fuel metering of jet engines. Utilizing Bendix-Stromberg practice, the Speed-Density Control accomplishes all of the following with a simple, direct action, and no servo delays.

- inherent temperature limitation by fuel/air ratio control.
- sensitive, accurate, all-speed governor.
- quick throttle burst permitted without over-temperature or blowout.
- no die-out on deceleration.
- compensation for air temperature, ram, and altitude.
- prompt and "cooler" starting.
- no disturbance from maneuvers, or "pullouts."

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SOUTH BEND 20, INDIANA

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FUEL METERING DEVICES
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STROMBERG* INJECTION CARBURETORS
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AIRPLANE WHEELS AND BRAKES
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HYDRAULIC EQUIPMENT

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A product's reputation depends on its performance. Do Phillips 66 Aviation Products "deliver"?

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America's major airlines, and airports throughout the Middle West and West, *are purchasing Phillips 66 Aviation Products in ever-increasing quantity.* These people buy wisely and well—why don't *you* do the same. Put *your* confidence in the products with the stamp of approval!

The Aviation Department, Phillips Petroleum Company, Bartlesville, Oklahoma.

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